

# PUBLIC HEALTH REPORTS

VOL. 37

MAY 26, 1922

No. 21

## THE SEROLOGICAL GROUPING OF MENINGOCOCCUS STRAINS ISOLATED IN NEW YORK CITY IN 1921 AND 1922.

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A collection of meningococcus strains was made in 1921 for the original purpose of obtaining freshly isolated strains to replace for the manufacturers of the antiserum some of those which had been long under artificial cultivation, because previous observations had led to the belief that after long cultivation certain strains of meningococci lose some of their tropinogenic power. The original plan was to treat rabbits with the strains as they were received, and make a serological study only of those strains which proved good for the production of antibodies, discarding those which were not suitable for the purpose at hand. After a time it became evident that the percentage of strains in the various serological groups was so unlike the percentages found in the studies made in 1918-19 (see Hygienic Laboratory Bulletin No. 124) that it would be of interest to classify all strains and compare the grouping with that found in the earlier studies. Since such a classification was not originally contemplated, the data are incomplete for some of the strains.

A limited number of strains isolated in 1922 have also been studied in respect of their tropin and agglutinin relationships. The results for each year are summarized in Tables I and II, together with summaries of the results obtained in the studies made in 1918-19.

TABLE I.—*Tropin grouping of meningococci.*

Group.	1918-19 (63 strains).	1921 (27 strains).	1922 (14 strains).
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
R.....	61.9	33.3	35.7
S.....	25.4	33.3	0
T.....	4.7	0	0
U.....	1.6	0	0
Z.....	6.4	25.9	42.9
Not to be classified in the above groups.....	0	7.5	21.5

TABLE II.—*Agglutinin grouping of meningococci.*

Type.	1918-19 (128 strains).	1921 (16 strains).	1922 (15 strains).
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
I.....	37.5	18.7	6.7
II.....	25.8	18.7	0
III.....	21.1	12.6	0
IV.....	2.3	6.3	13.3
Not to be classified in the above types.....	13.3	43.7	80.0

The methods used in the study here reported are essentially the same as those described in the publication referred to above. Deviations from those methods will be described in a more detailed report to be published later. Briefly, a strain was assigned to a given tropin group when a suspension of a density equivalent to 5,000 parts per million (silica standard) absorbed tropins from the group serum as completely as the homologous antigen of the same density. The strains placed in Group Z were an exception to that rule, however, for they absorb partially from one, two, three, or all four of the other groups, but fail to absorb sufficient tropins from any one of the well-defined groups to be classified in them. The criterion of Butterfield and Neill, who studied the agglutinin relationships of the 1918-19 strains, was adopted for the classification according to agglutinin types. In order to qualify as a member of a type according to their criterion, the coccus in question was required to react as follows: After a suspension of the coccus has acted on the type serum, this type serum must be reduced at least one-half in agglutinin titer for its homologous type coccus, as compared with the unsaturated control type serum tested for agglutinin titer at the same time and under the same conditions.

The strains in the 1918-19 collection were isolated in widely separated parts of the United States, a majority of strains, however, coming from New York City. A few strains from England were included. There was no apparent correlation between serological types and geographical distribution. The strains in the 1921 and 1922 collections were all from New York City. We are indebted to Dr. Amoss, of the Rockefeller Institute, for one strain which was sent to the Hygienic Laboratory as a strain of unusual interest because it failed to agglutinate in polyvalent serum. The remainder of the strains were sent at our request, and were strains of no known especial interest, being those which happened to be at hand when requests for meningococci were made. We are indebted to Dr. Kerr, at the time in charge of the Public Health Service Hospital at Ellis Island, for two of the strains, and to the bureau of laboratories, New York City Department of Health, for the remaining strains. All strains were isolated from spinal fluid in cases of meningitis. The same strains were used for the type antigens and for the production of type serums as were used in the studies made in 1918-19. They remain true to type, with no apparent change in their serological properties.

The percentage of strains falling in the various tropin groups are given in Table I, which brings out the striking fact that whereas 93.6 per cent of the strains collected in 1918-19 could be classified in the well-defined Groups R, S, T, and U, only 66.6 per cent of the 1921 strains and 35.7 per cent of the 1922 strains could be so classified. It was a rare occurrence to find among the 1918-19 strains one which

did not belong to some one of the well-defined groups. On the other hand, the majority of strains thus far received in 1922 belong to the generalized Group Z, or show no relation whatever to the definite tropin groups. The 1921 strains are intermediary between the 1918-19 and the 1922 strains as regards their tropin affinities.

The serological transition in meningococci is even more striking when their agglutinin relationships are considered. Table II summarizes the agglutination reactions of the strains collected in the three periods. There is a marked decrease in the percentage of strains belonging to Types I, II, and III, a slight increase in the percentage of Type IV strains, and a remarkable increase in the percentage of strains which show no relationship to the four types. As in the case of tropins, the 1921 strains are intermediary between the 1918-19 and the 1922 strains in their agglutinative properties.

When tested against polyvalent horse serum such as is used in treatment of meningitis, a much larger percentage of strains were agglutinated than would be indicated by the results presented in Table II. Out of fifteen 1922 strains, ten were agglutinated satisfactorily by the polyvalent serum; three gave a slight reaction; and only two showed an absence of agglutinin receptors for the antibodies in the serum used for these tests. A possible explanation of this discrepancy may be the presence of "group" agglutinins in the polyvalent horse serum.

The tables show a transition of serological properties of meningococci as regards both tropins and agglutinins, passing from the well-defined types of 1918-1919 to another serological order. It has not yet been determined whether new well-defined types may appear in the strains being isolated at the present time. The investigation thus far has made the impression, however, that such will not be found to be the case, but that the new strains are indefinite and generalized in their serological relationships. Hence the increase in Type IV strains deserves comment. The fact that the indefinite tropin group Z was observed to be roughly correlated with agglutinin Type IV strains when the study of the 1918-19 strains was made, gives some foundation for considering Type IV apart from Types I, II, and III, which included 84 per cent of the 1918-19 strains, coinciding in a general way with tropin groups R and S (group R coincides roughly with Types I and III, and group S coincides roughly with Type II). The increase in percentage of Type IV strains along with the increase in percentage of strains of indefinite agglutinin type, coupled with the increase in percentage of tropin group Z strains and of strains showing no relationship with the definite tropin groups, gives further reason for considering Type IV of a somewhat different nature than Types I, II, and III.

The number of strains in the 1921 and 1922 collections is rather small to draw conclusions from. The serological differences between them and the 1918-19 strains are so striking, however, that we believe that they represent a general transition in meningococci which is of sufficient interest to justify this preliminary report. It is particularly desirable that strains from other sections of the country be studied, to determine whether the change observed in the New York City strains is country-wide.

### ADENOIDS.<sup>1</sup>

Nature intends that we should breathe through the nose and has so arranged that the air is strained, warmed, and moistened as it passes through the nose. This is very important. Unfortunately, about 10 per cent of all children have adenoids which interfere with



FIG. 1.



FIG. 2.

free breathing through the nose; and since so many serious results follow such a condition, parents should learn something about adenoids and their treatment.

#### WHAT ARE ADENOIDS?

Because adenoids are located up behind the palate and are, therefore, out of sight, a better understanding of them may be had by studying the accompanying diagrams.

The course of the air through the nose, along back of the palate, and through the windpipe, is indicated by arrows in Figures 1 and 2. At the place marked "AT" (Fig. 1), nature has provided a kind of moist tissue cushion which helps to filter impurities out of the air. This cushion is formed of what is called "lymphoid tissue" and is very similar to that which makes up the tonsils. In a large number

<sup>1</sup> Revision of a health leaflet on adenoids originally issued for popular distribution as "Keep Well Series" No. 2.



of children the amount of "lymphoid tissue" is greatly increased (the causes are not clearly known) and forms what are known as "adenoids." From the position of these adenoids as shown in Figure 2, it will readily be seen how easily they prevent the free passages of air through the nose.

#### WHAT ADENOID'S DO.

Owing to their position and structure, adenoids are not only specially subject to infection and inflammation, but they also interfere with breathing. It is easy to understand, therefore, that their harmful effects are produced in two ways: First, by the absorption into the system of poisonous material when they are infected; and, second, by mechanically interfering with the free passage of air through the nose. In fact, one of the first results of the growth of adenoids is mouth breathing, which is usually associated with a discharge from the nose. When this condition develops, the air breathed in reaches the throat and lungs in an unpurified condition. Moreover, it is not sufficiently warmed or moistened. The child is unable to blow his nose. In a short time children in such condition begin to suffer from repeated colds; the nasal discharge continues and takes on the character of a chronic nasal catarrh. Unless proper treatment is now undertaken, the condition soon grows worse, and the child's nasal breathing becomes more and more obstructed.

This is by no means all the harm that is done by adenoids. They affect the voice, which becomes hoarse and muffled; they give rise to night terrors, induce snoring, and greatly interfere with night rest because of the inability of the child to breathe freely while sleeping.

Through the development of chronic nasal catarrh, adenoids may lead to the loss of sense of smell.

At times the infection spreads from diseased adenoids and causes inflammation of the inner ear and deafness. Children are frequently made intermittently deaf by congested and swollen adenoids. This condition often leads to street accidents. The inability to hear not being a constant condition, occurring at times suddenly, the child fails to notice approaching vehicles while crossing the street and is injured.

Children who suffer from adenoids are usually pale, often have narrow and otherwise deformed chests, and altogether are not as strong and robust as normal children.

Acting mechanically, adenoids cause broadening of the root of the nose and disfiguration and other unpleasing alteration of the facial expression. The alteration of the facial expression is often so great that the child looks stupid and sometimes even almost imbecilic (Pl. I, A).

One of the chief disfigurements caused by adenoids is that of the jaws and teeth. This is well shown in Figure 3 and Plate I, B.

It will be noticed that the teeth of the upper jaw stick out and are not covered by the lip as they should be. In these cases the roof of the mouth, that is, the palate, is narrow and highly arched, and the two jaws do not come together as they do in normal persons. This condition is called malocclusion. Usually, too, the teeth of the upper jaw are irregular and crowded.

The malformation of the teeth thus produced by adenoids may lead in turn to other serious conditions, among them the chronic disease known as pyorrhea, various forms of root infection, and chronic indigestion.



FIG. 3.

#### HOW TO RECOGNIZE THE CONDITION.

The presence of adenoids should be suspected if the child habitually sleeps with open mouth, snores a great deal, or has frequent strangling coughing spells. Sleep with open mouth is one of the first signs and should, therefore, lead at once to a careful examination by a physician. Sometimes difficulty in hearing is one of the early

symptoms. Therefore, in all cases of ear trouble an examination should be made for adenoids.

#### WHAT TO DO.

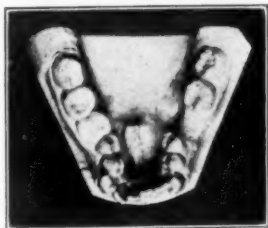
Adenoids should be removed whenever they are large enough to give rise to marked symptoms, such as habitual mouth breathing, muffled voice, deafness, disturbed sleep, alterations of the facial expression, chronic nasal discharge, frequent attacks of sore throat and "cold in the head," bronchitis, and recurring attacks of "ear-ache" and discharge from the ears. Especially should adenoids in young children be removed, for with them it is probable that the condition will grow worse.

The operation is a simple one and not dangerous. It should be performed under anesthesia. Relief is immediate and the health and strength of the child usually improve rapidly afterwards. It is wrong to delay having the operation done, for the presence of adenoids not only endangers the child's health, but a few months' delay may cause considerable malformation of the jaws, palate, nose, and face.

A study of the accompanying photographs (Pl. I, C and D) of the same patient before and after treatment for adenoids will show what can be done by proper treatment.



A. Stupid expression associated with adenoids.



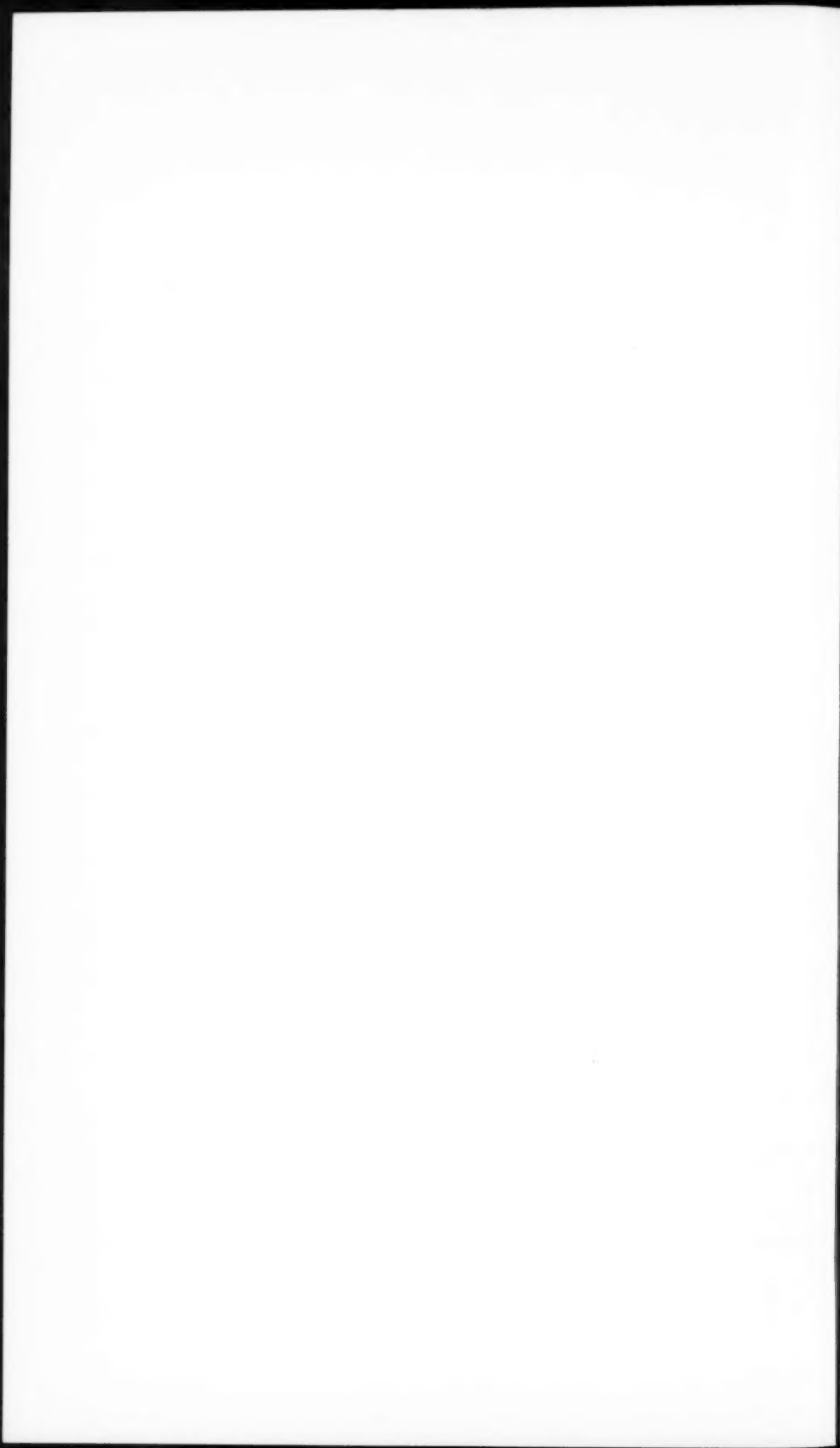
B. Disfigurement caused by adenoids.



C. Before treatment for adenoids.



D. After treatment for adenoids.



## QUARANTINE OF TYPHOID CARRIER UPHELD.

The following is a decision<sup>1</sup> of the Supreme Court of Illinois in which the quarantine of a carrier of typhoid bacilli is sustained:

Thompson, J.: Jennie Barmore filed in this court at the June term, 1921, an application for a writ of habeas corpus, stating that she was unlawfully restrained of her liberty at her home in the city of Chicago by John Dill Robertson, commissioner of health, and Herman N. Bundesen, an epidemiologist of the department of health of the city of Chicago. The writ was awarded, and respondents made due return, by which they admit that they are restraining relatrix from going about the city of Chicago and from following her usual occupation of boarding house keeper, for the reason that she is a carrier of typhoid bacilli; that they are restraining her by virtue of the authority given them by the statutes of the State and the ordinances of the city and the rules and regulations of the State department of health, and that her detention was necessary for the preservation of the health of the citizens of the city and the State.

The facts are stipulated by the parties to be substantially as follows: Relatrix is a citizen of Chicago, and is the owner of the house in which she resides. She kept roomers and boarders. Information came to the department of health, by letters and otherwise, that several persons who had previously roomed and boarded at the house of relatrix had been ill with typhoid fever. Pursuant to this information the department placed relatrix and her house under quarantine, and caused a large placard to be placed in a conspicuous place upon the house. This placard warned all persons that a typhoid carrier resided in the house, and contained the ordinary warnings and instructions found on such placards. Relatrix submitted to the department of health bowel discharges, and an examination of them revealed the presence of large numbers of typhoid bacilli. Several bacteriologists and other medical experts testified that a typhoid carrier is one who has suffered from typhoid fever, and, although having apparently recovered, still carries the typhoid bacilli, or one who has never suffered from the disease of typhoid fever, but who continually or intermittently discharges the typhoid bacilli; that the means of freeing such a person of this disability is not known to medical science, and that a typhoid carrier may discharge typhoid bacilli for a number of years, and then for a period of years the body discharges may be free from bacilli, after which the disability may recur. The uncontradicted evidence of the experts is that typhoid bacilli are present in the bowel and bladder discharges of relatrix, and that typhoid fever may be communicated to healthy persons if these bacilli enter their bodies. Relatrix testified that she had never been sick with typhoid fever, and that no member of her family and no boarder or roomer in her household had ever been sick with typhoid fever while they lived with her, and that so far as she knew no one had contracted the disease by contact with her. There was no evidence introduced by respondents to contradict her testimony. The quarantine regulations prescribed by the respondents require relatrix to remain in her home and forbid her to prepare food for anyone but her husband, and forbid anyone to come into her home, as roomers or otherwise, unless they have been immunized from typhoid fever.

Hemenway on Public Health (section 30) says of human disease carriers:

"It is found that many healthy individuals are a constant source of danger to the community by reason of the fact that they are producing and throwing off disease germs. This is especially true of typhoid fever. After an attack of the fever, perhaps so mild that it was not at the time recognized, many persons continue to develop and discharge the bacilli of the fever, and they are thus causing frequent infections, especially because, owing to their apparent good health, neither the carrier nor his

<sup>1</sup> People ex rel. Barmore v. Robertson et al., 134 N. E. 815.



friends are on their guard against the ever-present danger. The legal rights of such individuals, and of the community as against them, may be a matter of some considerable question and perplexity. This must be recognized, however: That a typhoid-fever patient is not properly quarantined so long as his infectious discharges are permitted to escape complete sterilization, and a typhoid carrier is entitled to no consideration if he so conducts himself that others receive infection from him. In other words, it is as necessary for the discharges of a carrier to be sterilized as it is for those of a patient."

This quotation shows at once the insidious danger of the disease with which we are dealing in this cause, and the difficult and perplexing problems its regulation presents.

The health of the people is unquestionably an economic asset and social blessing, and the science of public health is therefore of great importance. Public health measures have long been recognized and used, but the science of public health is of recent origin, and with the advance of the science methods have been greatly altered. The results to be obtained by scientific health regulations are well illustrated by the remarkable changes made in health conditions in Cuba and Panama. With the increase of population the problem of conserving the health of the people has grown, and public health officers and boards have been appointed for the purpose of devising and enforcing sanitary measures.

That the preservation of the public health is one of the duties devolving upon the State as a sovereign power will not be questioned. Among all the objects sought to be secured by governmental laws none is more important than the preservation of public health. The duty to preserve the public health finds ample support in the police power, which is inherent in the State, and which the State can not surrender. Every State has acknowledged power to pass and enforce quarantine, health, and inspection laws to prevent the introduction of disease, pestilence, and unwholesome food, and such laws must be submitted to by individuals for the good of the public. The constitutional guaranties that no person shall be deprived of life, liberty, or property without due process of law, and that no State shall deny to any person within its jurisdiction the equal protection of the laws, were not intended to limit the subjects upon which the police power of a State may lawfully be asserted in this any more than in any other connection. (12 R. C. L. 1271; *Booth v. People*, 186 Ill. 43, 57 N. E. 798, 50 L. R. A. 762, 78 Am. St. Rep. 229; *State v. Robb*, 100 Me. 189, 60 Atl. 874, 4 Ann. Cas. 275; *Kirk v. Wyman*, 83 S. C. 372, 65 S. E. 387, 23 L. R. A. (N. S.) 1188; *Ayres v. State*, 178 Ind. 453, 99 N. E. 730, Ann. Cas. 1915C, 549.)

Generally speaking, what laws or regulations are necessary to protect public health and secure public comfort is a legislative question, and appropriate measures intended and calculated to accomplish these ends are not subject to judicial review. The exercise of the police power is a matter resting in the discretion of the legislature or the board or tribunal to which the power is delegated, and the courts will not interfere with the exercise of this power except where the regulations adopted for the protection of the public health are arbitrary, oppressive, and unreasonable. The court has nothing to do with the wisdom or expediency of the measures adopted. (*People v. Weiner*, 271 Ill. 74, 110 N. E. 870, L. R. A. 1916C, 775, Ann. Cas. 1917C, 1065; *State v. Morse*, 84 Vt. 387, 80 Atl. 189, 34 L. R. A. (N. S.) 190, Ann. Cas. 1913B, 218; *State v. Superior Court*, 103 Wash. 409, 174 Pac. 973.)

The legislature may, in the exercise of the police power of the State, create ministerial boards, with power to prescribe rules and impose penalties for their violation and provide for the collection of such penalties, and the exercise of this power by the legislature is not a delegation of legislative power. The legislature has the authority to exercise its police powers by general law, and to confer upon boards and other agencies authority and discretion to execute these laws. (*People v. Tait*, 261 Ill. 197, 103 N. E. 750; *Klafter v. Examiners of Architects*, 259 Ill. 15, 102 N. E. 193, 46 L. R. A. (N. S.) 532, Ann. Cas. 1914B, 1221; *City of Chicago v. Kluever*, 257 Ill. 317, 100 N. E. 917.) In order to secure and promote the public health the State has created a depart-

ment of public health as an instrumentality or agency for that purpose, and has invested it with the power to adopt by-laws, rules, and regulations necessary to secure the objects of its organization. Similar departments, usually administered by a board of health, have been established in every State in the Union. While it is true that the character or nature of such departments or boards is administrative only, still the powers conferred upon them by the legislature, in view of the great public interest confided to them, have always received from the courts a liberal construction, and the right of the legislature to confer upon them the power to make reasonable rules, by-laws, and regulations has long been recognized by the authorities. When these departments or boards duly adopt rules or by-laws by virtue of legislative authority, such rules and by-laws have the force and effect of law, and are often said to be in force by authority of the State. (*Blue v. Beach*, 155 Ind. 121, 56 N. E. 89, 50 L. R. A. 64, 80 Am. St. Rep. 195.)

Section 55 of the Civil Administrative Code (Hurd's Rev. St. 1919, c. 24½) confers upon the department of public health all the rights, powers, and duties vested by law in the State board of health and its officers. Section 2 of the act creating the State board of health (Hurd's Rev. St. 1919, c. 111½) gives the department of public health general supervision of the interests of the health and lives of the people of the State, and gives it supreme authority in matters of quarantine. It is also given authority to make such rules and regulations as it shall from time to time deem necessary for the preservation and improvement of the public health, and makes it the duty of all local health and police officers to enforce these rules and regulations. The act provides a penalty by a fine not to exceed \$200, or imprisonment in the county jail not to exceed six months, or both, for a violation of any rule or regulation duly adopted by said department. Pursuant to this authority the department of public health has promulgated rules and regulations pertaining to the quarantine of typhoid fever patients and typhoid carriers. These rules and regulations provide that every physician or other person having knowledge of a known or suspected case of typhoid fever shall immediately report the same to the local health authorities, and shall give such information, including probable source of infection, as shall be available. The local health authorities are in turn required to report the case immediately to the State department of public health, and the house where the patient or carrier resides shall be immediately placarded in accordance with the regulations, and instructions shall be given the inmates of the house. Rule 5, which relates to the quarantine, provides:

"The patient shall be confined to one well-ventilated room screened against flies and other insects and as remote as possible from other occupied rooms. The rooms should be stripped of draperies, carpets, upholstery, and all furniture and articles not necessary for the comfort of the occupants. Visitors shall not be permitted to enter the sickroom or to come in contact with the attendants. Quarantine shall be raised only by the local health authorities or by the State department of public health."

The quarantine regulations further provide that other inmates of the infected premises may go about their usual business with certain regulations and restrictions. It is further provided:

"The local health authorities or the State department of public health may require the submission of specimens of blood or other material from cases of typhoid fever or suspected carriers for the purpose of examination by a State or municipal laboratory."

Rule 9 specifically governs typhoid carriers, and provides:

"Any person known to be or suspected of being a typhoid carrier, and therefore capable of spreading typhoid infection, shall be treated as a typhoid patient even though to all outward appearances such person may appear to be well, and he shall be subject to the rules governing typhoid fever cases: *Provided, however,* That in order to meet conditions peculiar to individual cases the State department of public health, upon its own initiative or upon recommendation of the local health authorities, may modify or relax these rules."

By the Cities and Villages Act the city council in cities is given power "to regulate the police of the city or village and pass and enforce all necessary police ordinances. \* \* \* To appoint a board of health, and prescribe its powers and duties. \* \* \* To do all acts, make all regulations which may be necessary or expedient for the promotion of health or the suppression of disease, \* \* \* " and "to pass all ordinances, rules, and make all regulations, proper or necessary, to carry into effect the powers granted to cities or villages, with such fines or penalties as the city council \* \* \* shall deem proper: *Provided*, No fine or penalty shall exceed \$200 and no imprisonment shall exceed six months for one offense." Pursuant to these powers the city of Chicago has established by ordinance an executive department of the municipal government of the city known as the department of health, which embraces the commissioner of health, the city physician, and other assistants and employees. The commissioner of health, who is required to be a physician, is made the head of the department of health, and is given the management and control of all matters and things pertaining thereto. He is appointed by the mayor, by and with the advice and consent of the city council. The commissioner is given general supervision over the sanitary condition of the city, and is given authority to appoint and to remove his assistants and all other officers, inspectors, and employees in the department of health. It is made the duty of the commissioner to enforce all laws of the State and ordinances of the city and all rules and regulations pertaining to the public health, and he is given power to make such rules and regulations in relation to the sanitary condition of the city and for the prevention and suppression of disease as he may deem necessary or advisable, but such rules and regulations are not to be in force until approved by the city council, except in cases of emergency. The commissioner and his assistants and employees are given full police powers, and are given authority to enter any building in the city for purposes of inspection, and to quarantine and examine and remove to isolated hospitals afflicted persons, and to arrest any person who violates any of the provisions of the ordinances and any of the rules and regulations of the department. The penalty for such violation is a fine of not less than \$10 and not more than \$200 for each offense. The city of Chicago has no board of health.

Under a general statute giving to the State department of health power to restrict and suppress contagious and infectious diseases, such department has authority to designate such diseases as are contagious and infectious, and the law is not void for this reason on the ground that it delegates legislative power. (*Ex parte McGee*, 105 Kans. 574, 185 Pac. 14, 8 A. L. R. 831.) The necessity of delegating to an administrative body the power to determine what is a contagious and infectious disease and giving the body authority to take necessary steps to restrict and suppress such disease is apparent to everyone who has followed recent events. Legislatures can not anticipate all the contagious and infectious diseases that may break out in a community, and to limit the activities of the health authorities to those diseases named by the legislature in the act creating the administrative body would oftentimes endanger the health and the lives of the people. There is probably not a legislature in the country that would have named the deadly Spanish influenza as a contagious and infectious disease prior to the epidemic of that disease that took a greater toll of lives throughout the country than any other epidemic known in this country. In emergencies of this character it is indispensable to the preservation of public health that some administrative body should be clothed with authority to make adequate rules which have the force of law, and to put these rules and regulations into effect promptly. Under these general powers the State department of health has authority to isolate persons who are throwing off disease germs and are thereby endangering the public health. (*Kirk v. Wyman*, *supra*; *State v. Superior Court*, *supra*; *State v. Racskowski*, 86 Conn. 677, 86 Atl. 606, 45 L. R. A. (N. S.) 580, Ann. Cas. 1914B, 410; *Crayton v. Larabee*, 220 N. Y. 493, 116 N. E. 355, L. R. A. 1918E, 432; *Brown v. Manning*, 103 Nebr. 540, 172 N. W. 522; *In re Johnson*, 40 Cal. App. 242, 180 Pac. 644.)

While the powers given to the health authorities are broad and far-reaching, they are not without their limitations. As we have said, while the courts will not pass upon the wisdom of the means adopted to restrict and suppress the spread of contagious and infectious diseases, they will interfere if the regulations are arbitrary and unreasonable. (*People v. Weiner*, supra; *Bailey v. People*, 190 Ill. 28, 60 N. E. 98, 54 L. R. A. 838, 83 Am. St. Rep. 116; *In re Smith*, 146 N. Y. 68, 40 N. E. 497, 28 L. R. A. 820, 48 Am. St. Rep. 769; *Ex parte Dillon* (Cal. App.), 186 Pac. 170; *Ragg v. Griffin*, 185 Iowa 243, 170 N. W. 400, 2 A. L. R. 1327.)

A person can not be quarantined upon mere suspicion that he may have a contagious and infectious disease (*Ex parte Shepard* (Cal. App.), 195 Pac. 1077), but the health authorities must have reliable information on which they have reasonable ground to believe that the public health will be endangered by permitting the person to be at large.

Where danger of an epidemic actually exists, health and quarantine regulations will always be sustained by the courts (*People v. Board of Education*, 234 Ill. 422, 84 N. E. 1046, 17 L. R. A. (N. S.) 709, 14 Ann. Cas. 943; *Hagler v. Lerner*, 284 Ill. 547, 120 N. E. 575; *Globe School District v. Board of Health*, 20 Ariz. 208, 179 Pac. 55); but the health regulations are all sustained on the law of necessity, and when the necessity ceases, the right to enforce the regulations ceases. Health authorities can not promulgate and enforce rules which merely have a tendency to prevent the spread of contagious and infectious diseases, which are not founded upon an existing condition or upon a well-founded belief that a condition is threatened which will endanger the public health. The health authorities cannot interfere with the liberties of a citizen until the emergency actually exists. (*Potts v. Breen*, 167 Ill. 67, 47 N. E. 81, 39 L. R. A. 152, 59 Am. St. Rep. 262; *In re Smith*, supra; *Rhea v. Board of Education*, 41 N. D. 449, 171 N. W. 103.)

Where one has been arrested and placed under quarantine on the ground that he is afflicted with a contagious disease, he has the right to have the legality of his detention inquired into by habeas corpus. (*Ex parte Hardcastle*, 84 Tex. Cr. R. 463, 208 S. W. 531, 2 A. L. R. 1539.)

It is not necessary that one be actually sick, as that term is usually applied, in order that the health authorities have the right to restrain his liberties by quarantine regulations. Quarantine is not a cure—it is a preventive. As the term is used in this opinion, quarantine is the method used to confine the disease within the person in whom it is detected, or to prevent a healthy person from contracting the infection. Disease germs do not usually travel through the air unaided, but they are carried by insects, by dumb animals, and by human beings. Effective quarantine must therefore be not so much the isolation of the person who is sick or affected with the disease as a prevention of the communication of the disease germs from the sick to the well. Thus, in the case of typhoid fever, effective quarantine must include very strict restrictions upon the movements of the attendants who in any way come in contact with the sick person or his discharges. It must include the destruction of the bacilli in the discharges of the bowels and the bladder and in the cloths used to wipe the mouth of the patient. Quarantine, in the very nature of the regulation, is not a definite or uniform measure, but it must vary according to the subject. One of the important elements in the administration of health and quarantine regulations is a full measure of common sense. It is not necessary for the health authorities to wait until the person affected with a contagious disease has actually caused others to become sick by contact with him before he is placed under quarantine. (*People v. Tait*, supra; *Kirk v. Wyman*, supra.) In the latter case a woman was affected with anæsthetic leprosy, contracted while she was engaged in missionary work in Brazil. It appeared that leprosy in this form was only slightly contagious, and that she had lived for many years in the city of Aiken, S. C., and had mingled freely with the people, and so far as could be ascertained she had not imparted the disease to any other person. The court held, however, that when the distressing nature of the malady



was regarded, the board of health was well within the limits of its powers when it required the victim of it to be isolated. The disease was incurable, and the isolation would necessarily continue throughout the remainder of the patient's life.

In the case at bar the State board of health, or a board of health in the city of Chicago duly organized pursuant to the authority given the city council by the legislature, undoubtedly has the right to establish reasonable quarantine regulations with respect to relatrix so long as she is discharging the germs of a contagious and infectious disease. Whether the authority exists to compel a person apparently well to submit to an examination to determine whether he is a germ carrier is not before us, for the reason that relatrix submitted to the examination which revealed that she is such a carrier. The only question presented for determination is whether she is legally and properly detained under quarantine in her home. In order to determine this question we must determine whether an authority authorized by the legislature of this State to determine when a person is afflicted with a contagious or infectious disease and to quarantine against the spread of such disease has acted in establishing the quarantine over the home and person of relatrix. The legislature has granted to cities the power to appoint a board of health and to prescribe its duties and powers. A board of health must necessarily consist of more than one person, and it generally consists of several persons. Many authorities contend that the administration of public health should be vested in an individual and that that individual should be a person trained in the science of public health. This contention is based on the ground that this form of administration of the health laws is productive of efficiency and economy. The same argument might be made in favor of an absolute monarchy, but the experience of the world has been that other forms of government, perhaps more cumbersome and less efficient, insure to the people a more reasonable and less arbitrary administration of the laws. Whatever may be best, the Legislature of Illinois has said that the public health of cities shall be regulated and guarded by a board of health, and until the legislature grants to cities the power to supervise the sanitary and health conditions of the city by another instrumentality the cities must content themselves with the power that has been given to them. The city council had no authority to delegate to a health officer the powers and duties which the legislature said it might delegate to a board of health. The powers given to boards of health are extraordinary, and the legislature was evidently unwilling to leave to one person the determination of such important and drastic measures as are given to such boards. In the judgment and fidelity of a greater number acting together is the greatest security against the abuse of extraordinary power. In *Taylor v. Adair County* (119 Ky. 374, 84 S. W. 299) it was held that a county board of health did not have power to delegate its duties to a health officer. In *Commonwealth v. Yost* (197 Pa. 171, 46 Atl. 845) it was held that a board of health had no authority to delegate to its secretary power to act in a matter requiring the action of the board. In *Young v. County of Blackhawk* (66 Iowa 460, 23 N. W. 923) it was held that a board of health could not delegate its powers to a committee appointed by the board.

The health commissioner of Chicago is purely a ministerial officer, and has no legislative powers whatever. The statute gives to no such individual authority to make rules and regulations which shall have the effect of law. The city has no right to give him authority to determine when a contagious and infectious disease exists and to establish a quarantine. His authority is limited to carrying into execution proper orders of a legally constituted board of health. (*People v. Board of Education*, supra.)

The department of health of Chicago reported the case of relatrix to the State department of health, and requested that department to authorize a modified quarantine. This authority was granted. While the original quarantine was established without authority of a legally constituted board of health, the State department of health has, by authorizing the modified quarantine, in effect established such quarantine on the report of the department of health of the city of Chicago, and respondents are therefore



,restraining relatrix as agents of the State department. She is bound to respect the rules and regulations promulgated by the State department of health respecting the modified quarantine under which she is placed, and for a violation of these rules she is subject to the penalties provided by the statutes. In order that she may know what the rules and regulations are, it is necessary that she be furnished a copy of them. Relatrix is therefore remanded to the custody of respondents as agents of the State department of health.

Relatrix remanded.

Duncan, J., dissenting.

### DEATH RATES IN A GROUP OF INSURED PERSONS.

DEATH RATES FOR PRINCIPAL CAUSES, FEBRUARY AND MARCH, 1922, AND COMPARISON OF RATES BY COLOR FOR FIRST QUARTERS OF 1920, 1921, AND 1922.

The accompanying tables are taken from the Statistical Bulletin of the Metropolitan Life Insurance Co., for April, 1922. They present the mortality data of the industrial department of the company for February and March, 1922, and compare, by color, the death rates among the policy holders for the first quarters of 1920, 1921, and 1922. The figures for 1922 are based on a strength of approximately 14,000,000 insured persons.

The gross death rate for this group was 14.9 per cent higher for March than for February, 1922 (February, 10.1; March, 11.6 per 1,000). Influenza was an important factor in this increase, the death rate from this disease increasing from 46.1 per 100,000 in February to 70.6 in March. Increased mortality was also noted from pneumonia, tuberculosis, and practically all important causes of death, including organic diseases.

*Death rates (annual basis) for principal causes per 100,000 lives exposed, for February and March, 1922, and March and year, 1921.*

Cause of death.	Death rate per 100,000 lives exposed.			
	March, 1922.	February, 1922.	March, 1921.	Year 1921. <sup>1</sup>
Total, all causes.....	1,157.5	1,010.7	1,046.9	853.8
Typhoid fever.....	3.0	1.9	3.1	6.6
Measles.....	5.1	2.5	5.9	3.1
Scarlet fever.....	6.6	9.0	9.5	6.9
Whooping cough.....	3.8	2.9	0.2	3.9
Diphtheria.....	19.1	21.9	24.4	23.3
Influenza.....	70.6	46.1	17.1	8.6
Tuberculosis (all forms).....	125.5	108.7	133.9	115.1
Tuberculosis of respiratory system.....	116.3	100.4	123.2	103.6
Cancer.....	76.1	72.5	73.0	70.4
Cerebral hemorrhage.....	75.8	69.1	68.1	60.9
Organic diseases of heart.....	168.2	153.4	133.9	115.0
Pneumonia (all forms).....	158.7	133.4	120.9	66.5
Other respiratory diseases.....	22.9	20.9	17.8	14.1
Diarrhea and enteritis.....	7.2	6.3	8.8	13.9
Bright's disease (chronic nephritis).....	87.5	75.8	74.2	66.7
Puerperal state.....	22.5	21.6	24.3	19.5
Suicides.....	7.3	6.3	6.1	7.5
Homicides.....	5.8	4.6	4.9	6.6
Other external causes (excluding suicides and homicides).....	49.7	46.7	44.7	56.2
Traumatism by automobile.....	8.4	7.4	7.4	11.9
All other causes.....	242.1	207.0	232.1	189.0

<sup>1</sup> Based on provisional estimate of lives exposed to risk in 1921.

*Death rates (annual basis) for principal causes per 100,000 persons exposed, compared by color for the first quarters, January to March, of 1920, 1921, and 1922.*

Cause of death.	Death rate per 100,000 persons exposed.					
	White.			Colored.		
	1922	1921	1920	1922	1921	1920
All causes of death.....	938.1	890.8	1,313.4	1,465.5	1,375.3	1,982.4
Typhoid fever.....	2.6	3.8	4.5	5.3	3.3	8.9
Measles.....	3.8	5.5	14.8	1.2	1.8	3.8
Scarlet fever.....	8.7	11.0	9.1	.5	3.6	.....
Whooping cough.....	3.1	5.5	9.4	3.4	7.9	9.2
Diphtheria and croup.....	21.5	30.4	30.6	9.6	5.8	6.7
Influenza.....	41.2	12.3	163.4	81.1	28.5	227.9
Meningococcus meningitis.....	.8	4.0	5.7	.2	3.1	7.5
Tuberculosis (all forms).....	97.8	106.5	138.4	231.1	265.7	310.1
Tuberculosis of respiratory system.....	89.5	96.6	125.3	216.1	247.2	286.3
Tuberculosis of the meninges, etc.....	3.7	5.2	6.4	4.1	5.6	4.8
Other forms of tuberculosis.....	4.7	4.7	6.7	10.8	13.0	18.9
Cerebral hemorrhage; apoplexy.....	67.6	63.3	70.2	99.4	90.8	96.2
Organic diseases of the heart.....	141.7	124.5	146.7	203.4	168.6	200.7
Total respiratory diseases.....	136.3	120.1	266.9	215.9	192.3	429.7
Bronchitis.....	8.2	7.1	14.7	13.2	13.2	19.4
Bronchopneumonia.....	43.4	37.0	77.0	51.3	48.3	90.2
Pneumonia (lobar and undefined).....	75.7	66.2	160.8	137.4	117.7	300.6
Other diseases of respiratory system.....	8.9	9.9	14.4	14.0	13.0	19.4
Diarrhea and enteritis.....	7.0	9.8	9.5	11.6	10.2	10.5
Under 2 years.....	2.8	3.3	4.2	2.9	1.8	4.0
2 years and over.....	4.2	6.5	5.3	8.7	8.4	6.5
Acute nephritis.....	5.9	5.5	6.6	15.4	18.3	23.2
Chronic nephritis.....	71.7	67.1	82.6	117.5	103.8	129.0
Total puerperal state.....	29.9	21.6	32.6	25.3	29.5	36.9
Puerperal septicemia.....	7.6	10.6	8.5	10.6	12.7	15.1
Puerperal albuminuria and convulsions.....	4.6	4.1	5.0	5.1	6.4	6.5
Other diseases of puerperal state.....	8.7	6.9	19.1	9.6	10.4	15.4
Total external causes <sup>1</sup> .....	57.0	57.3	60.6	86.4	96.4	88.6
Suicides.....	7.1	7.3	5.3	5.1	6.1	3.5
Homicides.....	3.7	3.3	2.9	25.3	27.2	18.3
Accidental and unspecified violence <sup>2</sup> .....	46.1	46.7	51.6	56.1	63.1	66.0
Accidental drowning.....	2.2	3.3	2.1	2.9	2.5	2.4
Automobile accidents.....	8.6	8.0	5.7	5.5	8.1	2.7
War deaths.....	.1	.1	.9	.....	.....	.8
All other and ill-defined causes of death.....	247.6	212.5	261.7	358.4	345.8	373.7

<sup>1</sup> Includes "War Deaths."

<sup>2</sup> Excludes "War Deaths."

## DEATHS DURING WEEK ENDED MAY 13, 1922.

*Summary of information received by telegraph from industrial insurance companies for week ended May 13, 1922, and corresponding week, 1921. (From the Weekly Health Index, May 16, 1922, issued by the Bureau of the Census, Department of Commerce.)*

	Week ended May 13, 1922.	Corresponding week, 1921.
Policies in force.....	49,771,976	46,840,169
Number of death claims.....	9,478	8,329
Death claims per 1,000 policies in force, annual rate.....	9.9	9.3

Deaths from all causes in certain large cities of the United States during the week ended May 13, 1922, infant mortality, annual death rate, and comparison with corresponding week of 1921. (From the Weekly Health Index, May 16, 1922, issued by the Bureau of the Census, Department of Commerce.)

City.	Estimated population July 1, 1922.	Week ended May 13, 1922.		Annual death rate per 1,000, corresponding week, 1921.	Deaths under 1 year.		Infant mortality rate, week ended May 13, 1922. <sup>3</sup>
		Total deaths.	Death rate. <sup>1</sup>		Week ended May 13, 1922.	Corresponding week, 1921.	
Total.....	27,855,500	6,859	12.8	11.8	909	847	.....
Akron, Ohio.....	<sup>2</sup> 268,435	30	7.5	6.8	7	3	74
Albany, N. Y.....	116,223	45	20.2	17.2	6	3	135
Atlanta, Ga.....	220,047	48	11.4	14.3	2	5	.....
Baltimore, Md.....	702,222	186	12.7	13.8	28	29	79
Birmingham, Ala.....	191,017	45	12.3	16.5	4	11	.....
Boston, Mass.....	764,017	205	14.0	12.7	25	39	67
Bridgeport, Conn.....	<sup>2</sup> 143,555	24	8.7	9.4	2	5	25
Buffalo, N. Y.....	528,163	141	13.9	11.7	26	17	102
Cambridge, Mass.....	110,944	22	10.3	14.2	2	5	37
Camden, N. J.....	121,915	33	14.1	11.3	7	5	107
Chicago, Ill.....	2,853,288	675	12.4	10.9	100	81	.....
Cincinnati, Ohio.....	404,865	116	14.9	13.2	10	12	67
Cleveland, Ohio.....	854,003	168	10.3	11.7	33	27	85
Columbus, Ohio.....	253,455	64	13.2	12.5	8	2	84
Dallas, Tex.....	171,974	24	7.3	9.1	4	4	.....
Dayton, Ohio.....	161,824	25	8.1	8.6	3	3	51
Denver, Colo.....	267,591	89	17.3	12.7	7	8	.....
Detroit, Mich.....	<sup>2</sup> 993,678	212	11.1	10.2	27	51	52
Fall River, Mass.....	120,790	30	13.0	19.4	7	10	98
Fort Worth, Tex.....	114,717	22	10.0	.....	1	.....	.....
Grand Rapids, Mich.....	143,572	35	12.7	8.9	3	4	50
Houston, Tex.....	150,267	32	11.1	10.8	4	6	.....
Indianapolis, Ind.....	353,237	89	13.9	12.7	11	4	84
Jersey City, N. J.....	305,911	77	13.1	12.2	13	10	83
Kansas City, Kans.....	105,688	34	16.8	6.5	3	1	60
Kansas City, Mo.....	343,988	97	14.7	12.6	10	8	.....
Los Angeles, Calif.....	183,866	183	15.0	13.0	12	8	50
Louisville, Ky.....	236,877	84	18.5	11.5	11	7	119
Lowell, Mass.....	114,423	33	14.6	11.5	7	5	118
Memphis, Tenn.....	167,862	41	12.7	11.0	8	5	.....
Milwaukee, Wis.....	476,603	113	12.4	9.6	36	19	176
Minneapolis, Minn.....	400,970	82	10.7	11.2	11	15	60
Nashville, Tenn.....	122,832	49	20.8	17.1	5	4	.....
New Bedford, Mass.....	127,542	33	13.5	9.2	7	6	104
New Haven, Conn.....	169,987	37	11.4	9.7	5	6	61
New Orleans, La.....	399,616	118	15.4	15.9	14	17	.....
New York, N. Y.....	5,839,746	1,475	13.2	11.4	207	172	80
Newark, N. J.....	431,792	94	11.4	11.3	12	6	53
Norfolk, Va.....	124,915	27	11.3	9.9	11	3	195
Oakland, Calif.....	233,279	52	11.6	6.0	3	1	38
Omaha, Nebr.....	200,739	52	13.5	14.6	10	4	108
Paterson, N. J.....	138,521	52	12.0	9.1	3	2	46
Philadelphia, Pa.....	1,894,500	500	13.8	13.2	54	48	64
Pittsburgh, Pa.....	607,902	151	13.0	14.7	19	18	61
Portland, Oreg.....	269,240	63	12.2	10.7	9	7	89
Providence, R. I.....	241,011	58	12.5	10.7	14	7	87
Richmond, Va.....	178,365	47	13.7	13.1	4	4	49
Rochester, N. Y.....	311,548	73	12.2	11.6	11	7	85
St. Louis, Mo.....	735,008	179	11.7	13.0	11	19	47
St. Paul, Minn.....	239,836	52	11.3	8.8	5	6	15
Salt Lake City, Utah.....	123,918	29	12.2	17.6	7	6	.....
San Francisco, Calif.....	529,792	118	11.6	11.3	7	10	40
Seattle, Wash.....	<sup>2</sup> 315,312	58	9.6	10.4	5	7	42
Spokane, Wash.....	104,445	35	17.5	10.9	5	3	107
Springfield, Mass.....	140,032	32	11.9	11.0	5	2	74
Syracuse, N. Y.....	181,012	46	13.3	12.6	8	8	96
Toledo, Ohio.....	269,717	59	13.8	12.5	7	10	68
Trenton, N. J.....	125,075	44	18.3	14.0	4	8	61
Washington, D. C.....	<sup>2</sup> 437,671	112	13.3	12.2	8	15	46
Wilmington, Del.....	115,568	24	10.8	10.6	6	3	117
Worcester, Mass.....	188,449	62	17.2	11.3	9	9	98
Yonkers, N. Y.....	105,422	21	10.4	13.6	0	3	0
Youngstown, Ohio.....	144,970	24	8.6	15.0	5	14	66

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1921. Cities left blank are not in the registration area for births.

<sup>3</sup> Enumerated population Jan. 1, 1920.

# PREVALENCE OF DISEASE.

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

## UNITED STATES.

### CURRENT STATE SUMMARIES.

#### Telegraphic Reports for Week Ended May 20, 1922.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.		COLORADO.	
	Cases.	(Exclusive of Denver.)	Cases.
Chicken pox.....	19	Chicken pox.....	24
Diphtheria.....	4	Diphtheria.....	17
Hookworm disease.....	21	Measles.....	1
Malaria.....	6	Mumps.....	4
Measles.....	4	Pneumonia.....	7
Pellagra.....	9	Scarlet fever.....	22
Scarlet fever.....	1	Septic sore throat.....	1
Smallpox.....	30	Smallpox.....	3
Tuberculosis.....	25	Tuberculosis.....	34
Typhoid fever.....	21	Typhoid fever.....	5
Whooping cough.....	14	Whooping cough.....	32
ARKANSAS.		CONNECTICUT.	
Chicken pox.....	7	Anthrax.....	1
Diphtheria.....	8	Cerebrospinal meningitis.....	2
Hookworm disease.....	2	Chicken pox.....	45
Influenza.....	9	Conjunctivitis (infectious).....	1
Malaria.....	63	Diphtheria.....	29
Measles.....	6	German measles.....	13
Pellagra.....	12	Impetigo contagiosa.....	1
Scarlet fever.....	1	Influenza.....	4
Smallpox.....	6	Lethargic encephalitis.....	1
Trachoma.....	1	Malaria.....	1
Typhoid fever.....	10	Measles:	
CALIFORNIA.		Bridgeport.....	24
Cerebrospinal meningitis:		Bristol.....	13
Los Angeles.....	1	Cheshire.....	17
Diphtheria.....	109	East Windsor.....	11
Influenza.....	21	Hartford.....	89
Lethargic encephalitis:		New Haven.....	95
Humboldt County.....	1	Stamford.....	32
Measles.....	29	West Haven.....	75
Poliomyelitis:		Scattering.....	61
Los Angeles County.....	2	Mumps.....	15
Scarlet fever.....	121	Pneumonia (lobar).....	27
Smallpox:		Poliomyelitis.....	1
Kern County.....	8		
Scattering.....	25		
Typhoid fever.....	18		

## CONNECTICUT—continued.

Scarlet fever:	Cases.
Bridgeport.....	8
Stamford.....	8
Scattering.....	41
Smallpox:	
New London.....	8
Scattering.....	4
Tetanus.....	1
Tuberculosis (all forms).....	41
Typhoid fever.....	3
Whooping cough.....	33

## DELAWARE.

Cerebrospinal meningitis:	
Greenwood.....	1
Chicken pox.....	2
Diphtheria.....	1
Malaria.....	1
Measles.....	3
Scarlet fever:	
Wilmington.....	18
Scattering.....	6
Tuberculosis.....	9
Typhoid fever.....	1
Whooping cough.....	4

## FLORIDA.

Diphtheria.....	10
Influenza.....	22
Leprosy.....	1
Malaria.....	12
Pneumonia.....	4
Scarlet fever.....	1
Smallpox.....	4
Typhoid fever.....	9

## GEORGIA.

Cerebrospinal meningitis.....	1
Chicken pox.....	13
Diphtheria.....	6
Dysentery (amebic).....	4
Dysentery (bacillary).....	7
Hookworm disease.....	7
Influenza.....	17
Malaria.....	17
Measles.....	5
Mumps.....	3
Pellagra.....	2
Pneumonia.....	8
Scarlet fever.....	8
Septic sore throat.....	3
Smallpox.....	28
Tetanus.....	1
Tuberculosis (all forms).....	8
Typhoid fever.....	19
Whooping cough.....	142

## ILLINOIS.

Cerebrospinal meningitis:	
Chicago.....	1
Grundy County—Waupeonsee Township... 1	
Oak Park.....	1
St. Charles.....	1
Urbana.....	1

<sup>1</sup> Week ended Friday.

## ILLINOIS—continued.

Diphtheria:	Cases.
Chicago.....	113
Scattering.....	60
Influenza.....	12
Lethargic encephalitis—Chicago.....	1
Pneumonia.....	275
Poliomyelitis:	
Henry County—Yorktown Township.....	1
Scarlet fever:	
Chicago.....	76
Rockford.....	8
Scattering.....	47
Smallpox:	
Ashton.....	11
Scattering.....	41
Typhoid fever.....	41
Whooping cough.....	135

## INDIANA.

Diphtheria.....	19
Rabies in animals—Marion County.....	3
Scarlet fever.....	20
Smallpox.....	27

## IOWA.

Diphtheria.....	12
Scarlet fever.....	19
Smallpox.....	17

## KANSAS.

Cerebrospinal meningitis.....	1
Chicken pox.....	74
Diphtheria.....	29
German measles.....	2
Influenza.....	2
Measles.....	8
Mumps.....	21
Pneumonia.....	11
Poliomyelitis.....	1
Scarlet fever.....	31
Smallpox.....	13
Tuberculosis.....	42
Typhoid fever.....	12
Whooping cough.....	47

## LOUISIANA.

Diphtheria.....	14
Influenza.....	63
Measles.....	21
Poliomyelitis.....	1
Smallpox.....	8
Typhoid fever.....	22

MARYLAND.<sup>1</sup>

Chicken pox.....	73
Diphtheria.....	30
Dysentery.....	1
Influenza.....	13
Lethargic encephalitis.....	1
Malaria.....	4
Measles.....	340
Mumps.....	219
Ophthalmia neonatorum.....	1
Paratyphoid fever.....	1
Pneumonia (all forms).....	61



## MARYLAND—continued.

	Cases.
Scarlet fever.....	42
Septic sore throat.....	1
Tetanus.....	1
Tuberculosis.....	59
Typhoid fever.....	6
Whooping cough.....	30

## MASSACHUSETTS.

Actinomycosis.....	1
Cerebrospinal meningitis.....	3
Chicken pox.....	109
Conjunctivitis (suppurative).....	18
Diphtheria.....	122
German measles.....	24
Influenza.....	8
Lethargic encephalitis.....	4
Measles.....	1,001
Mumps.....	153
Ophthalmia neonatorum.....	8
Pneumonia (lobar).....	94
Scarlet fever.....	195
Trachoma.....	4
Tuberculosis (all forms).....	194
Typhoid fever.....	6
Whooping cough.....	110

## MINNESOTA.

Cerebrospinal meningitis.....	1
Chicken pox.....	6
Diphtheria.....	88
Influenza.....	2
Measles.....	140
Pneumonia.....	7
Scarlet fever.....	85
Smallpox.....	81
Tuberculosis.....	72
Typhoid fever.....	6
Whooping cough.....	19

## MISSISSIPPI.

Diphtheria.....	10
Smallpox.....	3
Typhoid fever.....	7

## MISSOURI.

Cerebrospinal meningitis.....	2
Chicken pox.....	45
Diphtheria.....	34
Epidemic sore throat.....	2
Influenza.....	5
Measles.....	16
Mumps.....	10
Pneumonia.....	20
Scarlet fever.....	20
Smallpox.....	17
Tetanus.....	1
Trachoma.....	21
Tuberculosis.....	72
Typhoid fever.....	7
Whooping cough.....	20

## MONTANA.

Diphtheria.....	7
Rocky Mountain spotted or tick fever:	
Broadview.....	1
Melstone.....	1
Musselshell.....	1
Warren.....	1

## MONTANA—continued.

	Cases.
Scarlet fever.....	8
Smallpox.....	8
Typhoid fever.....	8

## NEBRASKA.

Chicken pox.....	19
Diphtheria.....	3

## Measles:

Lincoln.....	73
Omaha.....	19
Scattering.....	11
Mumps.....	24
Pneumonia.....	2
Scarlet fever.....	14
Smallpox.....	8
Tuberculosis.....	1
Typhoid fever.....	1
Whooping cough.....	12

## NEW JERSEY.

Chicken pox.....	94
Diphtheria.....	107
Influenza.....	6
Malaria.....	1
Measles.....	1,080
Pneumonia.....	113
Scarlet fever.....	250
Smallpox.....	1
Trachoma.....	3
Typhoid fever.....	7
Whooping cough.....	115

## NEW MEXICO.

Chicken pox.....	2
Conjunctivitis.....	6
Diphtheria.....	13
Influenza.....	2
Mumps.....	1
Pellagra.....	1
Pneumonia.....	6
Scarlet fever.....	8
Trachoma.....	1
Tuberculosis.....	25
Typhoid fever.....	3
Whooping cough.....	1

## NEW YORK.

(Exclusive of New York City.)

Diphtheria.....	124
Influenza.....	8
Lethargic encephalitis.....	5
Measles.....	822
Pneumonia.....	237
Poliomyelitis.....	1
Scarlet fever.....	217
Smallpox.....	1
Typhoid fever.....	34
Whooping cough.....	144

## NORTH CAROLINA.

Chicken pox.....	83
Diphtheria.....	29
Measles.....	104
Scarlet fever.....	16
Septic sore throat.....	4
Smallpox.....	47
Typhoid fever.....	21
Whooping cough.....	235

OREGON.		WASHINGTON—continued.	
	Cases.		Cases.
Chicken pox.....	17	Measles.....	3
Diphtheria:		Mumps.....	28
Portland.....	8	Scarlet fever.....	16
Scattering.....	7	Smallpox.....	21
Influenza.....	11	Tuberculosis.....	44
Lethargic encephalitis.....	1	Typhoid fever.....	2
Measles.....	4	Whooping cough.....	28
Mumps.....	4		
Pneumonia.....	19	WEST VIRGINIA.	
Scarlet fever.....	3	Diphtheria.....	8
Smallpox—Portland.....	10	Scarlet fever.....	6
Tuberculosis.....	13	Tuberculosis.....	6
Typhoid fever.....	4	Typhoid fever.....	2
Whooping cough.....	12		
SOUTH DAKOTA.		WISCONSIN.	
Chicken pox.....	4	Milwaukee:	
Diphtheria.....	7	Cerebrospinal meningitis.....	3
Measles.....	4	Chicken pox.....	40
Pneumonia.....	4	Diphtheria.....	6
Scarlet fever.....	12	Influenza.....	1
Smallpox.....	11	Measles.....	6
Trachoma.....	2	Pneumonia.....	16
Tuberculosis.....	4	Scarlet fever.....	19
		Smallpox.....	1
		Tuberculosis.....	23
		Whooping cough.....	113
		Scattering:	
		Chicken pox.....	86
		Diphtheria.....	22
		German measles.....	46
		Influenza.....	14
		Lethargic encephalitis.....	1
		Measles.....	23
		Pneumonia.....	6
		Scarlet fever.....	62
		Smallpox.....	27
		Tuberculosis.....	50
		Typhoid fever.....	7
		Whooping cough.....	63
		WYOMING.	
		Diphtheria.....	2
		Influenza.....	2
		Pneumonia.....	3
		Smallpox.....	2
		Tuberculosis.....	1
		Whooping cough.....	3
TEXAS.			
Diphtheria.....	11		
Influenza.....	4		
Measles.....	71		
Pneumonia.....	6		
Smallpox.....	18		
Typhoid fever.....	5		
VERMONT.			
Chicken pox.....	9		
Diphtheria.....	4		
Measles.....	39		
Mumps.....	11		
Scarlet fever.....	15		
Whooping cough.....	19		
WASHINGTON.			
Botulism—Yakima.....	1		
Cerebrospinal meningitis—Spokane.....	1		
Chicken pox.....	36		
Diphtheria.....	18		
Lethargic encephalitis—Seattle.....	1		

## Delayed Reports for Week Ended May 13, 1922.

CONNECTICUT.		CONNECTICUT—continued.	
	Cases.		Cases.
Cerebrospinal meningitis.....	1	Measles—Continued.	
Chicken pox.....	37	Darien.....	10
Conjunctivitis (infectious).....	1	Hartford.....	74
Diphtheria:		Lisbon.....	13
Bridgeport.....	14	Manchester.....	8
Scattering.....	24	New Haven.....	110
German measles.....	24	New London.....	12
Influenza.....	13	Stamford.....	35
Lethargic encephalitis.....	1	West Haven.....	23
Malaria.....	1	Scattering.....	48
Measles:		Mumps.....	10
Bridgeport.....	22	Ophthalmia neonatorum.....	1
Cheshire.....	18	Paratyphoid fever.....	1

1 Deaths.

CONNECTICUT—continued.		KENTUCKY—continued.	
	Cases.		Cases.
Pellagra.....	1	Mumps.....	3
Pneumonitis (lobar).....	34	Pellagra.....	1
Poliomyelitis.....	1	Pneumonia.....	17
Scarlet fever.....	75	Scarlet fever.....	6
Septic sore throat.....	3	Septic sore throat.....	1
Smallpox:		Smallpox:	
Bridgeport.....	7	Knott County.....	15
Stratford.....	11	Scattering.....	4
Tuberculosis (all forms).....	35	Tuberculosis:	
Typhoid fever.....	5	Jefferson County.....	29
Whooping cough.....	35	Scattering.....	3
DISTRICT OF COLUMBIA.		Typhoid fever.....	13
Chicken pox.....	30	Whooping cough.....	4
Diphtheria.....	14	MAINE.	
Lethargic encephalitis.....	1	Chicken pox.....	9
Measles.....	27	Diphtheria.....	11
Scarlet fever.....	6	Influenza.....	7
Tuberculosis.....	36	Measles.....	11
Typhoid fever.....	1	Paratyphoid fever.....	2
Whooping cough.....	7	Pneumonia.....	1
KENTUCKY.		Scarlet fever.....	14
Chicken pox.....	4	Tuberculosis.....	2
Diphtheria.....	11	Typhoid fever.....	2
Influenza.....	1	Whooping cough.....	7
Measles:		MISSISSIPPI.	
Campbell County.....	22	Diphtheria.....	10
Fayette County.....	12	Scarlet fever.....	5
Jefferson County.....	15	Smallpox.....	17
Scattering.....	9	Typhoid fever.....	23

## SUMMARY OF CASES REPORTED MONTHLY BY STATES.

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
<i>April, 1922.</i>										
Idaho.....		9	3		1			37	23	2
Louisiana.....	3	51	608	48	21	15		21	83	50
Michigan.....		457	260		2,738		4	629	130	67
Minnesota.....		199	273		357		1	477	232	18
New York.....	29	1,065	1,540		12,170		8	2,422	7	104
West Virginia.....	2	85	669		297			115	92	43

## RECIPROCAL NOTIFICATION.

Connecticut, Massachusetts, and Minnesota—April, 1922.

Cases of communicable diseases referred during April, 1922, to other State health departments by Departments of Health of the States of Connecticut, Massachusetts, and Minnesota.

## CONNECTICUT.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Diphtheria: Greenwich.....	State department of health, Albany, N. Y.	Case was brought from Port Chester, N. Y., to Greenwich, Conn., for hospital treatment.

*Cases of communicable diseases referred during April, 1922, to other State health departments by Departments of Health of the States of Connecticut, Massachusetts, and Minnesota—Continued.*

## CONNECTICUT—Continued.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Measles: Norwalk.....	State department of health, Albany, N. Y.	Patient arrived in Norwalk, Conn., from Jamaica, Long Island, where infection was apparently received.
Scarlet fever: Greenwich.....	.....do.....	Patient was brought from Rye, N. Y., to Greenwich, Conn., for hospital treatment.
New Canaan.....	.....do.....	Patient arrived in New Canaan, Conn., on Apr. 23 and case was diagnosed as scarlet fever on Apr. 24; she was apparently infected while residing in Brooklyn, N. Y.
Tuberculosis (pulmonary): Lebanon.....	State department of public health, Boston, Mass.	Patient has removed from Lebanon, Conn., to 25 Sumner Street, Springfield, Mass.
Tuberculosis (other forms): New Canaan.....	.....do.....	Patient formerly lived in Roxbury, Mass., and was treated for tuberculosis of first and second dorsal vertebrae at the Children's Hospital, Boston.

## MASSACHUSETTS.

Typhoid fever: Springfield.....	State health department, Jacksonville, Fla.	Patient stayed at St. Petersburg prior to onset of disease.
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## MINNESOTA.

Tuberculosis: Duluth, St. Louis County.	Superior, R. No. 1, Douglas County, Wis.	Sputum examined in Duluth Branch Laboratory; positive.
Oronoco Sanatorium, Rochester, Olmsted County.	Grantsburg, Burnett County, Wis.; Anaconda, Deerlodge County, Mont.	Patients left sanatorium for their homes.
Pokegama Sanatorium, Pine County.	Easby, Cavalier County, N. Dak.; Burlington, Ward County, N. Dak.; Tower City, Cass County, N. Dak.	Do.
Mayo Clinic, Rochester, Olmsted County.	Kingston, Shoshone County, Idaho; Chicago, Cook County, Ill.; Ridge Farm, Vermilion County, Ill.; Dubuque, Dubuque County, Iowa; Belmond, Wright County, Iowa; Center Point, Linn County, Iowa; Dafter, Chippewa County, Mich.; Scotia, Greeley County, Nebr.; Waynoka, Woods County, Okla.; Portland, Oreg.; Manito- woc, Manitowoc County, Wis.; Shawano, Shawano County, Wis.; Burnett, Racine County, Wis.; Sault Ste. Marie, Algoma County, Ontario, Canada; Excel, Alberta, Canada.	9 advanced cases, 5 moderately advanced, and 1 chronic fibrous case left Mayo Clinic for their homes.
U. S. Veterans' Hospital No. 65, St. Paul, Ram- sey County.	Glasgow, Valley County, Mont.; Fargo, Cass County, N. Dak.; Hudson, Lincoln County, S. Dak.; Rapid City, Pennington County, S. Dak.; Aberdeen, Brown County, S. Dak.; Pierre, Hughes County, S. Dak.	2 active cases, 3 inactive, and 1 improved case left hospital for their homes.
Do.....	Prescott, Yavapai County, Ariz.; Fort Lyons, Colo.; Fort Bayard, Grant County, N. Mex.; North Dakota Sanatorium, N. Dak.; Hot Springs, Fall River County, S. Dak.	20 active cases transferred from hospital to other sanatoriums.

## CITY REPORTS FOR WEEK ENDED MAY 6, 1922.

## CEREBROSPINAL MENINGITIS.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended May 6, 1922.		City.	Median for previous years.	Week ended May 6, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
Arkansas:				Michigan:			
Fort Smith.....		1	1	Muskegon.....	0		1
California:				Port Huron.....	0	1	
San Francisco.....	0	1	1	New Jersey:			
Connecticut:				Jersey City.....	0	1	
Bridgeport.....	0	1		New York:			
Derby.....	0		1	Elmira.....	0	1	
New Haven.....	0	1		Hornell.....		1	
Waterbury.....	1		1	New York.....	7	6	6
Florida:				Ohio:			
Tampa.....			1	Hamilton.....	0		1
Georgia:				Pennsylvania:			
Valdosta.....	0	1	1	Philadelphia.....	2		2
Illinois:				West Virginia:			
Centralia.....	0	1		Charleston.....	0		1
Chicago.....	1	3		Wisconsin:			
Indiana:				Milwaukee.....	2	1	
East Chicago.....			1	Wyoming:			
Massachusetts:				Cheyenne.....	0	1	
Lawrence.....	0	1					
Malden.....	0		1				
Newton.....	0	1					

## DIPHTHERIA.

See p. 1274; also Telegraphic weekly reports from States, p. 1262, and Monthly summaries by States, p. 1266.

## INFLUENZA.

City.	Cases.		Deaths, week ended May 6, 1922.	City.	Cases.		Deaths, week ended May 6, 1922.
	Week ended May 7, 1921.	Week ended May 6, 1922.			Week ended May 7, 1921.	Week ended May 6, 1922.	
California:				Kansas:			
Alameda.....		1		Wichita.....	1		
Berkeley.....	2			Louisiana:			
Long Beach.....			1	New Orleans.....		1	2
Los Angeles.....	0	8	1	Maine:			
Oakland.....			1	Bangor.....	1		
Pasadena.....	1			Biddeford.....	3		
San Diego.....		2		Lewiston.....	5		
San Francisco.....	4	4	1	Maryland:			
Santa Cruz.....			1	Baltimore.....	6		
Stockton.....	1			Massachusetts:			
Colorado:				Boston.....	1	2	1
Denver.....			1	Fall River.....	1		
Connecticut:				Haverhill.....	4		
Bridgeport.....		1		Peabody.....	1		
Greenwich.....	1			Saugus.....	4		
Meriden.....	1			Somerville.....	3	1	
New Britain.....		1		Woburn.....			1
Stonington.....	1			Michigan:			
District of Columbia:				Detroit.....	2	2	1
Washington.....		1	1	Saginaw.....		1	
Florida:				Minnesota:			
Tampa.....		3		Minneapolis.....			1
Georgia:				Missouri:			
Atlanta.....	2			Independence.....			1
Illinois:				Kansas City.....	3	5	6
Chicago.....	35	28	7	St. Louis.....		3	
Springfield.....			1	Springfield.....			1



## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## INFLUENZA—Continued.

City.	Cases.		Deaths, week ended May 6, 1922.	City.	Cases.		Deaths, week ended May 6, 1922.
	Week ended May 7, 1921.	Week ended May 6, 1922.			Week ended May 7, 1921.	Week ended May 6, 1922.	
New Jersey:				Pennsylvania:			
Jersey City.....		1		Philadelphia.....	4	7	5
Kearny.....	6	2		Rhode Island:			
Newark.....	4	7		Providence.....		1	
Paterson.....		1		Texas:			
Trenton.....			1	Dallas.....	4		1
New York:				El Paso.....			1
Albany.....	1			Fort Worth.....		1	1
Buffalo.....		4	1	Houston.....			1
Jamestown.....		1		Vermont:			
Lockport.....		1		Burlington.....			1
Mount Vernon.....				Virginia:			
New York.....	49	25	7	Petersburg.....		1	
Rochester.....			1	Roanoke.....			1
Saratoga Springs.....		1		West Virginia:			
North Carolina:				Fairmont.....		3	
Charlotte.....			1	Huntington.....			1
Salisbury.....			1	Wisconsin:			
Wilmington.....	1			Madison.....		1	
Ohio:				Manitowoc.....		1	
Ashtabula.....			1	Milwaukee.....		1	
Cincinnati.....		1	1				
Columbus.....			1				
Toledo.....			3				

## LEPROSY.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Arkansas:			Michigan:		
Little Rock.....	1		Detroit.....	1	
California:			New York:		
Los Angeles.....	1		New York.....	1	

## LETHARGIC ENCEPHALITIS.

California:			Massachusetts:		
Oakland.....	1	1	Chelsea.....	1	
San Francisco.....	1				

## MALARIA.

Alabama:			Louisiana:		
Tuscaloosa.....	7		New Orleans.....	1	
Arkansas:			New Jersey:		
Little Rock.....	4		Newark.....	1	
California:			New York:		
Stockton.....	1		New York.....	1	
Florida:			Pennsylvania:		
Tampa.....	6		Philadelphia.....	2	
Georgia:			Texas:		
Savannah.....	1		Dallas.....	2	1
Valdosta.....	1				

## MEASLES.

See p. 1274; also Telegraphic weekly reports from States, p. 1262; and Monthly summaries by States, p. 1266.

## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## PELLAGRA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			South Carolina:		
Birmingham.....	1		Charleston.....		1
Montgomery.....		1	Tennessee:		
California:			Memphis.....		1
Riverside.....	1		Nashville.....		1
Stockton.....	1		Texas:		
Georgia:			Fort Worth.....	2	2
Savannah.....	1	1			

## PNEUMONIA (ALL FORMS).

Alabama:			Iowa:		
Birmingham.....		4	Burlington.....	4	2
Mobile.....		1	Muscatine.....	1	
Arkansas:			Kansas:		
Fort Smith.....		1	Kansas City.....	1	
California:			Topeka.....		4
Bakersfield.....	1		Wichita.....		1
Glendale.....	1		Kentucky:		
Long Beach.....	2		Lexington.....		2
Los Angeles.....	42	16	Louisville.....	10	6
Oakland.....	5		Louisiana:		
Riverside.....	3	1	New Orleans.....		10
Sacramento.....	2		Maine:		
San Bernardino.....	1		Biddeford.....		1
San Diego.....	3	2	Lewiston.....		2
San Francisco.....	18	10	Portland.....		6
Santa Barbara.....	1		Waterville.....	2	
Stockton.....	2		Maryland:		
Colorado:			Cumberland.....		1
Denver.....		6	Massachusetts:		
Connecticut:			Belmont.....		1
Bridgeport.....	6	3	Boston.....		31
Bristol.....	2	1	Brookline.....		1
Derby.....	2		Cambridge.....		4
Hartford.....	3		Chelsea.....		1
Milford.....	1		Chicopee.....		2
New Britain.....	1		Fall River.....		7
New Haven.....	6		Framingham.....		2
New London.....	1		Lawrence.....		1
Norwich.....	1		Lowell.....	3	
Waterbury.....		3	Lynn.....	4	2
Delaware:			Malden.....	2	
Wilmington.....		1	Medford.....	2	
District of Columbia:			Melrose.....		2
Washington.....		8	Methuen.....	2	1
Florida:			New Bedford.....		14
Tampa.....		3	Newton.....	1	
Georgia:			Peabody.....		1
Atlanta.....		5	Pittsfield.....		1
Brunswick.....		1	Plymouth.....		1
Savannah.....		1	Salem.....		1
Valdosta.....		2	Somerville.....	6	1
Illinois:			Springfield.....	3	2
Alton.....		1	Taunton.....		2
Aurora.....		6	Webster.....		1
Chicago.....	280	63	Weymouth.....		1
Cicero.....		3	Worcester.....		6
Decatur.....	5	1	Michigan:		
East St. Louis.....	1		Ann Arbor.....	4	1
Evanston.....	3		Battle Creek.....	1	
Freeport.....		1	Benton Harbor.....	2	
Jacksonville.....		1	Detroit.....	68	21
Mattoon.....	1		Flint.....	5	3
Oak Park.....	1		Grand Rapids.....	5	2
Peoria.....		2	Highland Park.....		2
Quincy.....	3	1	Jackson.....		2
Rock Island.....	2	1	Marquette.....	1	
Rockford.....		6	Muskegon.....		1
Springfield.....	10	2	Pontiac.....		1
Indiana:			Port Huron.....		4
East Chicago.....		2	Saginaw.....		3
Fort Wayne.....		2	Minnesota:		
Gary.....		6	Duluth.....	4	3
Indianapolis.....		14	Minneapolis.....		6
Mishawaka.....		2	St. Paul.....		7
Terre Haute.....		2			

## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## PNEUMONIA (ALL FORMS)—Continued.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Missouri:			Ohio:		
Independence.....		2	Akron.....	4	
Jefferson City.....		1	Ashtabula.....		1
Kansas City.....	16	15	Barberton.....		1
St. Joseph.....		2	Canton.....	1	
Springfield.....		2	Cincinnati.....		10
Montana:			Columbus.....		3
Missoula.....	1		Dayton.....	2	
Nebraska:			East Cleveland.....	2	1
Lincoln.....		1	East Youngstown.....		1
Omaha.....		13	Hamilton.....	1	1
Nevada:			Kenmore.....	1	
Reno.....	2		Lakewood.....		2
New Jersey:			Lancaster.....		2
Atlantic City.....	1		Lima.....		2
Bellefonte.....	1		Lorain.....	1	
Bloomfield.....	2	1	Mansfield.....	1	
Clifton.....	1		Newark.....		1
East Orange.....	3	1	Niles.....	1	
Elizabeth.....		1	Norwood.....	2	1
Hackensack.....	1		Piqua.....		2
Harrison.....	2		Springfield.....		1
Hoboken.....		6	Toledo.....		5
Jersey City.....	5		Youngstown.....		7
Kearny.....	1		Oklahoma:		
Morristown.....		2	Oklaoma.....		1
Newark.....	49	9	Pennsylvania:		
Orange.....		2	Philadelphia.....	69	46
Passaic.....	3	5	Rhode Island:		
Paterson.....	3		Cranston.....		2
Trenton.....	8		Pawtucket.....		2
West New York.....		1	Providence.....		5
West Orange.....	2		South Carolina:		
New York:			Charleston.....		2
Buffalo.....	23	8	Tennessee:		
Elmira.....	6		Memphis.....		8
Glens Falls.....	1		Nashville.....		5
Hudson.....		1	Texas:		
Ithaca.....	1		Dallas.....		3
Jamestown.....	2		El Paso.....		8
Lackawanna.....	8	4	Fort Worth.....		1
Lockport.....	1		Houston.....		1
Mount Vernon.....		1	Utah:		
New York.....	328	215	Salt Lake City.....		2
Niagara Falls.....	6		Virginia:		
North Tonawanda.....		1	Lynchburg.....		1
Ogdensburg.....		1	Norfolk.....		2
Peekskill.....		1	Petersburg.....		1
Port Chester.....	4		Portsmouth.....		3
Poughkeepsie.....	2		Richmond.....		5
Rochester.....	16	8	West Virginia:		
Rome.....	2	1	Bluefield.....		1
Saratoga Springs.....		1	Charleston.....		1
Schenectady.....	5	3	Huntington.....		2
Syracuse.....		4	Morgantown.....	2	
Troy.....	12	5	Wheeling.....		2
Watertown.....	1		Wisconsin:		
White Plains.....	4	1	Beloit.....		1
Yonkers.....		3	Kenosha.....	4	1
North Carolina:			Milwaukee.....	5	
Charlotte.....		1	Oshkosh.....		1
Raleigh.....		1	Racine.....		1
Wilmington.....		1	Wyoming:		
Winston-Salem.....		1	Cheyenne.....	2	

## POLIOMYELITIS (INFANTILE PARALYSIS).

City.	Median for years 1915 to 1921, in- clusive.	Week ended May 6, 1922.	
		Cases.	Deaths.
New York:			
New York.....	1	1	

## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## RABIES IN ANIMALS.

City.	Cases.	City.	Cases.
California:		Missouri:	
Los Angeles.....	10	Kansas City.....	1
Riverside.....	2	New York:	
Kentucky:		Rochester.....	2
Louisville.....	2	North Carolina:	
		Winston-Salem.....	1

## SCARLET FEVER.

See p. 1274; also Telegraphic weekly reports from States, p. 1262, and Monthly summaries by States, p. 1266.

## SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended May 6, 1922.		City.	Median for previous years.	Week ended May 6, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
California:				Montana:			
Bakersfield.....	0	1		Great Falls.....	1	5	
Los Angeles.....	2	1		Nebraska:			
Richmond.....	1	1		Lincoln.....	4	4	
Sacramento.....	0	1		Nevada:			
San Francisco.....	3	1		Reno.....	1	1	
Colorado:				New York:			
Denver.....	18	6	4	New York.....	0		1
Connecticut:				North Carolina:			
Bridgeport.....	0	3		Durham.....	0	1	
Fairfield.....		2		Winston-Salem.....	6	3	
District of Columbia:				Ohio:			
Washington.....	1	1		Canton.....	1	1	
Georgia:				Dayton.....	0	1	
Atlanta.....	5	3		Fremont.....	0	1	
Brunswick.....	0		1	New Philadelphia.....	0	3	
Macon.....	0	1		Sandusky.....	0	3	
Savannah.....	0	8		Toledo.....	6	7	
Illinois:				Oklahoma:			
Chicago.....	2	3		Oklahoma.....	5	2	
Pekin.....	1	3		South Dakota:			
Peoria.....	3	11		Sioux Falls.....	1	4	
Indiana:				Tennessee:			
Kokomo.....	0	2		Nashville.....	0	1	
Iowa:				Texas:			
Clinton.....	0	4		Dallas.....	11	1	
Council Bluffs.....	1	8		Utah:			
Des Moines.....	3	1		Salt Lake City.....	8	1	
Muscatine.....	0	3		Washington:			
Kansas:				Everett.....	1	2	
Kansas City.....	3	1		Seattle.....	12	1	
Wichita.....	3	4		Spokane.....	11	11	
Michigan:				Tacoma.....	0	1	
Ann Arbor.....	0	1		West Virginia:			
Detroit.....	11	4		Bluefield.....	2	1	
Grand Rapids.....	1	1		Petersburg.....	2	4	
Muskegon.....	3		1	Wisconsin:			
Minnesota:				Ashland.....	0	2	
Minneapolis.....	30	2		Milwaukee.....	6	3	
St. Paul.....	10	7		Oshkosh.....	0	2	
Missouri:				Superior.....	1	14	
Kansas City.....	13	5	3	Wausau.....	0	3	

## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## TETANUS.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
California:			South Carolina:		
Los Angeles.....		1	Charleston.....		1
Connecticut:			Tennessee:		1
Hartford.....	1		Knoxville.....	1	1
Illinois:			Texas:		
Chicago.....	1	1	Houston.....		1
New York:					
Ithaca.....	1	1			
Lockport.....	1	1			
Poughkeepsie.....	1	1			

## TUBERCULOSIS.

See p. 1274; also Telegraphic weekly reports from States, p. 1262.

## TYPHOID FEVER.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended May 6, 1922.		City.	Median for previous years.	Week ended May 6, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Minnesota:			
Birmingham.....	2	1		Minneapolis.....	1	2	
Arkansas:				Rochester.....	0	1	
Fort Smith.....	0	1		Winona.....	0	1	
California:				Missouri:			
Alameda.....	0	1		Kansas City.....	1	1	
Los Angeles.....	1	1		St. Louis.....	2	2	1
San Francisco.....	2	1		Nebraska:			
Santa Ana.....	1	1		Omaha.....	0	1	1
Stockton.....	0	1		New Jersey:			
Connecticut:				Plainfield.....	0	2	
Hartford.....	0		1	New York:			
New Haven.....	0		1	Buffalo.....	0	1	
Delaware:				Lackawanna.....	0	4	
Wilmington.....	0	4		New York.....	13	5	2
Florida:				Port Chester.....	0	1	
Tampa.....		1		Watertown.....	0	1	
Georgia:				Ohio:			
Macon.....	0	1		Akron.....	1	1	
Savannah.....	1	3	1	Cincinnati.....	1	1	
Illinois:				Hamilton.....	0	2	
Aurora.....	0	1	1	Newark.....	0	1	
Decatur.....	0	1		Sandusky.....	0	1	
Kewanee.....	0	13	1	Springfield.....	0		
Springfield.....	0	2		Toledo.....	1		1
Iowa:				Youngstown.....	0	1	1
Davenport.....	0	1		Oregon:			
Kansas:				Portland.....	0		1
Atchison.....	0	4		Pennsylvania:			
Lawrence.....	0	1		Philadelphia.....	7	2	
Kentucky:				Pottstown.....	0	1	
Covington.....	0	3		Scranton.....	0	1	
Louisville.....	0	2		Uniontown.....	0	2	
Louisiana:				Tennessee:			
New Orleans.....	3	2		Memphis.....	1	1	2
Massachusetts:				Nashville.....	1	1	
Beverly.....	0	1		Texas:			
Boston.....	2	1		Waco.....	0	1	
Chelsea.....	0	2		Utah:			
Everett.....	0	1		Salt Lake City.....	0		1
Lawrence.....	1	1		Virginia:			
Medford.....	0	1		Alexandria.....	0	1	
Michigan:				Lynchburg.....	0	1	
Detroit.....	5	4	2	Richmond.....	1	1	
Saginaw.....	0	1		Washington:			
				Spokane.....	1	3	



## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alabama:										
Birmingham.....	178,270	48	2		3		1		6	7
Mobile.....	60,151	15								1
Montgomery.....	43,464	13			1		1		5	
Arkansas:										
Fort Smith.....	28,811	10								2
Hot Springs.....	11,695	4								
Little Rock.....	64,967								9	
North Little Rock.....	14,048								1	
California:										
Alameda.....	28,806	6	1				6		1	
Bakersfield.....	18,638	7	1				1	1		1
Eureka.....	12,923	2							2	1
Glendale.....	13,536	9								1
Long Beach.....	55,593	24	2	1			1			3
Los Angeles.....	576,673	191	34	1	2		15		55	19
Oakland.....	216,361	42	18	1	4		3		5	2
Pasadena.....	45,354	5	3				2			
Richmond.....	16,843	3	1							
Riverside.....	19,341	8								1
Sacramento.....	65,857	24	5				5		5	3
San Bernardino.....	18,721	8	1		1					4
San Diego.....	74,683	31	1				7		5	5
San Francisco.....	508,410	136	10	3	4		6		27	9
Santa Ana.....	15,485	1								
Santa Barbara.....	19,441	4								1
Santa Cruz.....	10,917	4							1	
Stockton.....	40,296	13	2							
Colorado:										
Denver.....	256,369	67	12	1	3		6			11
Greeley.....	10,883	1								
Pueblo.....	42,908	6	1				1		5	
Connecticut:										
Bridgeport.....	143,538	35	15		21		6		3	2
Bristol.....	20,620	5	1						1	
Derby.....	11,238	5								
Fairfield (town).....	11,475	2								
Greenwich (town).....	22,123	1			1					
Hartford.....	138,036	37	7		102		4		4	
Manchester (town).....	15,370	0			6		4			
Milford (town).....	10,193	6			1		1			
New Britain.....	59,316	9								
New Haven.....	162,519	39	3		82		6			2
New London.....	25,688	4			12		1			
Norwalk.....	27,700	6								
Norwich (town).....	29,685	6			8					
Stamford (town).....	40,057		1		21		13			
Waterbury.....	91,410	9	1		1		1			
Delaware:										
Wilmington.....	110,168	16	1		1		22			
District of Columbia:										
Washington.....	437,571	125	16	1	14		8		31	11
Florida:										
Tampa.....	51,252	21	3		3				5	1
Georgia:										
Atlanta.....	200,616	52	1	1			2		5	5
Brunswick.....	14,413	4								
Macon.....	62,995		1							
Rome.....	13,252						1			
Savannah.....	83,252	27	1				1		1	4
Valdosta.....	10,783	5								
Idaho:										
Boise.....	21,390	5								
Illinois:										
Alton.....	24,682	4	1				1	1		
Aurora.....	26,397	23	1		7				2	
Bloomington.....	28,725	4							1	
Centralia.....	12,491	2								
Chicago.....	2,701,705	688	114	7	468	3	58		189	51
Cicero.....	44,995	11	1				1			
Decatur.....	43,818	9	1						6	1
East St. Louis.....	66,740	11							3	4
Elgin.....	27,454	7			1				1	
Evanston.....	37,215	9			4		2		2	
Forest Park.....	10,768		1		3					

## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Popula- tion Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Illinois—Continued.										
Freeport.....	19,669	2					2			
Galesburg.....	23,834	7	3		1					
Jacksonville.....	15,713	16	2				4			
Kewanee.....	16,026	10								
La Salle.....	13,050	2					1		1	
Mattoon.....	13,552	5	1							
Oak Park.....	39,830	14	2		13		2		1	
Pekin.....	12,086	0								
Peoria.....	76,121	27					6			2
Quincy.....	35,978	11					1			
Rockford.....	65,651	27	2	1	10		4	1		1
Rock Island.....	35,177	4							2	1
Springfield.....	59,183	20							1	1
Indiana:										
Anderson.....	29,767	5								
Clinton.....	10,962	3					1			
Crawfordsville.....	10,139	2								1
East Chicago.....	35,967	12								1
Fort Wayne.....	36,549	17	1		1					1
Frankfort.....	11,585	7								
Gary.....	55,378	19			2					
Hammond.....	38,004	4			1					
Indianapolis.....	314,194	109	10		78		3		4	8
Kokomo.....	30,067	8					1			
La Fayette.....	22,486	8					2		1	
Logansport.....	21,626	5	1						1	1
Mishawaka.....	15,195	3								
South Bend.....	70,983	11	1	1	9				3	1
Terre Haute.....	66,083	18	5				5			
Iowa:										
Burlington.....	24,057	11								
Cedar Rapids.....	45,565						2			
Clinton.....	24,151		3							
Council Bluffs.....	36,162	10	1				1	1		
Davenport.....	56,727						2			
Des Moines.....	126,468		5				7			
Dubuque.....	39,141						2			
Iowa City.....	11,267		1							
Marshalltown.....	15,731						1			
Mason City.....	20,065	8					1			
Muscatine.....	16,068	7	1							
Sioux City.....	71,227		10	1						
Waterloo.....	36,239		1		1					
Kansas:										
Atchison.....	12,630		2				1			
Coffeyville.....	13,452	1								
Fort Scott.....	10,693	1								
Kansas City.....	101,177		2				1			
Lawrence.....	12,456	6								1
Leavenworth.....	16,912		2							
Parsons.....	16,028	4	1						2	
Salina.....	15,085	4	2				2			
Topeka.....	50,022	17	1		2		2		4	2
Wichita.....	72,128	28	1		8		4		1	2
Kentucky:										
Covington.....	57,121	14	1		18				1	1
Lexington.....	41,534	14			38				1	1
Louisville.....	234,891	67	5		2		1		15	4
Owensboro.....	17,424		3		1					
Paducah.....	24,735		1				3			
Louisiana:										
New Orleans.....	387,219	108	10				2		27	14
Maine:										
Auburn.....	16,985	3					1			
Bath.....	14,731	4								
Biddeford.....	13,038	5								
Lewiston.....	31,791	11					7		4	1
Portland.....	69,272	30	2				7			2
Maryland:										
Cumberland.....	29,837	16					1		1	2
Massachusetts:										
Adams.....	12,967	1							4	
Amesbury.....	10,036	2								
Arlington.....	18,665	5	2		3					

## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Massachusetts—Continued.										
Attleboro.....	19,731	7							1	2
Belmont.....	10,749	4			1		4		1	
Beverly.....	22,561	5			1		1			
Boston.....	748,060	236	48	1	190		50	4	47	20
Braintree.....	10,580	3	1						2	1
Brookline.....	37,748	7			51				2	
Cambridge.....	109,694	27	3		91		3		2	4
Chelsea.....	43,184	8			7		3		1	1
Chicopee.....	36,214	6	1		5		3		1	1
Clinton.....	12,979	3							1	
Danvers.....	11,108				3		1			
Dedham.....	10,792	2								
Everett.....	40,120	4			15		2		4	
Fall River.....	120,485	43	6	1	2		2		8	6
Frammingham.....	17,033	5	1		2		3		1	
Gardner.....	16,971	6							2	1
Greenfield.....	15,462	4	2		1					
Haverhill.....	53,884	4	4		4		3		4	
Lawrence.....	94,270	31	4		23	4	2		3	
Leominster.....	19,744	5			2				2	
Lowell.....	112,479	35	5	1	4		4		2	2
Lynn.....	99,148	16	3		3		4		3	
Malden.....	49,103	10	1		2		11			1
Medford.....	39,048	6			5					
Melrose.....	18,204	10	1		1		2		1	
Methuen.....	15,189	6		1	8		2			
Natick.....	10,907						1			
New Bedford.....	121,217	38	3				4	1	6	4
Newburyport.....	15,618	4	1		5					
Newton.....	46,084	12	1		31		6			1
North Adams.....	22,282	10			1		1			
Northampton.....	21,951	8		1	4		1			
Peabody.....	19,552	5	2		4					
Pittsfield.....	41,751	13	1				2		1	9
Plymouth.....	13,045	2								
Quincy.....	47,876	5	1		30		1			1
Salem.....	42,529	17		1	16		3	1	1	
Somerville.....	93,091	17	2		29		6		3	
Southbridge.....	14,245	0	1						1	
Springfield.....	129,563	31			56		2		8	1
Taunton.....	37,137	18	1				2			1
Wakefield.....	13,025	3								
Watertown.....	21,457	2					1		1	
Webster.....	13,258	4			9				1	
Westfield.....	18,604	4	1		6					
Weymouth.....	15,057	3								
Winthrop.....	15,455	2			1		2			
Woburn.....	10,574	3								
Worcester.....	179,754	49	6				6		5	3
Michigan:										
Alpena.....	11,101						1			
Ann Arbor.....	19,516	4					2		2	
Battle Creek.....	36,164		2		22		2			
Benton Harbor.....	12,233	2	6				4			
Detroit.....	993,739	245	36	4	307	7	34	1	59	32
Flint.....	91,599	16	3		9		4			1
Grand Rapids.....	137,634	39	2		1		1		16	6
Hamtramck.....	48,615	0	3		11				3	
Highland Park.....	46,499	14	2		155		3			
Ironwood.....	15,739	6					2	1	1	
Jackson.....	48,374	12					1			
Kalamazoo.....	48,358	18	9	1			6		4	3
Marquette.....	12,718	3	3	1			2			
Muskegon.....	36,570	10			1					1
Pontiac.....	34,273	8			59		9			
Port Huron.....	25,944	8					2			
Saginaw.....	61,903	17	2		6		2			1
Sault Ste. Marie.....	12,096	3	1				4			1
Minnesota:										
Duluth.....	98,917	16	3		3		3		2	1
Hibbing.....	15,089		1				3			
Minneapolis.....	380,582	85	18	1	54	3	29		28	5
Rochester.....	13,722	13	1						1	1

## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Minnesota—Continued.										
St. Cloud.....	15,873	.....	9	.....	.....	.....	9	.....	1	.....
St. Paul.....	234,595	58	6	.....	40	.....	15	.....	12	10
Winona.....	19,143	.....	1	.....	.....	.....	.....	.....	.....	.....
Missouri:										
Independence.....	11,686	9	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson City.....	14,490	8	.....	.....	.....	.....	.....	.....	.....	.....
Kansas City.....	324,410	113	4	1	4	.....	10	1	5	4
St. Joseph.....	77,939	28	2	.....	.....	.....	4	.....	.....	5
St. Louis.....	772,897	182	22	1	2	.....	23	.....	30	11
Springfield.....	39,631	15	.....	.....	.....	.....	.....	.....	.....	1
Montana:										
Great Falls.....	24,121	6	4	.....	.....	.....	.....	.....	1	.....
Missoula.....	12,668	4	.....	.....	.....	.....	.....	.....	.....	.....
Nebraska:										
Lincoln.....	54,934	22	.....	.....	66	.....	.....	.....	.....	1
Omaha.....	191,601	57	10	.....	23	.....	4	.....	.....	4
Nevada:										
Reno.....	12,016	6	.....	.....	.....	.....	.....	.....	.....	.....
New Hampshire:										
Berlin.....	16,104	3	.....	.....	.....	.....	.....	.....	.....	.....
Concord.....	22,167	20	.....	.....	1	.....	.....	.....	1	1
Dover.....	13,029	3	.....	.....	4	.....	.....	.....	.....	.....
Kecene.....	11,210	4	.....	.....	.....	.....	4	.....	.....	.....
Nashua.....	28,379	9	.....	.....	.....	.....	.....	.....	.....	1
Portsmouth.....	13,569	.....	.....	.....	1	.....	.....	.....	.....	.....
New Jersey:										
Asbury Park.....	12,400	1	1	.....	1	.....	4	.....	.....	.....
Atlantic City.....	50,682	15	1	.....	2	.....	2	.....	2	.....
Bayonne.....	76,754	.....	1	.....	33	.....	2	.....	3	.....
Belleville.....	15,660	.....	.....	.....	16	.....	3	.....	1	.....
Bloomfield.....	22,019	4	.....	.....	17	.....	3	.....	2	.....
Clifton.....	26,470	1	.....	.....	2	.....	3	.....	.....	.....
East Orange.....	59,710	.....	1	.....	75	.....	6	.....	.....	1
Elizabeth.....	95,682	.....	1	.....	24	.....	9	.....	.....	.....
Garfield.....	19,381	2	.....	1	1	.....	1	.....	1	.....
Hackensack.....	17,667	8	.....	.....	32	.....	.....	.....	.....	.....
Harrison.....	15,721	.....	3	.....	11	.....	.....	.....	1	.....
Hoboken.....	68,166	14	3	.....	15	.....	.....	.....	1	.....
Jersey City.....	297,864	.....	20	.....	32	.....	10	.....	14	2
Kearny.....	26,724	3	1	.....	41	.....	2	.....	.....	.....
Montclair.....	28,810	6	.....	.....	6	.....	1	.....	1	.....
Morristown.....	12,548	7	.....	1	.....	.....	.....	.....	.....	1
Newark.....	414,216	86	14	5	144	4	38	.....	34	13
Orange.....	33,268	6	.....	.....	.....	.....	2	.....	.....	.....
Passaic.....	63,824	15	.....	.....	.....	.....	10	.....	1	.....
Paterson.....	135,866	.....	4	.....	60	.....	6	.....	8	.....
Perth Amboy.....	41,707	13	2	.....	7	.....	4	.....	1	.....
Phillipsburg.....	16,023	3	.....	.....	.....	.....	.....	.....	.....	.....
Plainfield.....	27,700	2	.....	.....	21	.....	.....	.....	.....	.....
Rahway.....	11,042	4	.....	.....	1	.....	.....	.....	.....	1
Summit.....	10,174	3	1	.....	2	.....	3	.....	.....	1
Trenton.....	119,289	32	3	.....	66	2	3	.....	6	1
Union.....	20,651	.....	2	.....	6	.....	2	.....	.....	.....
West Hoboken.....	40,068	4	1	.....	12	.....	8	.....	.....	.....
West New York.....	29,926	8	1	.....	22	1	2	.....	.....	.....
West Orange.....	15,573	2	.....	.....	12	.....	3	.....	.....	.....
New Mexico:										
Albuquerque.....	15,157	8	3	1	.....	.....	5	.....	2	3
New York:										
Albany.....	36,192	10	1	.....	2	.....	.....	.....	.....	4
Buffalo.....	506,775	133	1	1	7	.....	34	1	10	15
Elmira.....	45,305	17	1	.....	25	.....	.....	.....	.....	.....
Geneva.....	14,648	2	.....	.....	.....	.....	.....	.....	.....	.....
Glens Falls.....	16,638	7	.....	.....	.....	.....	.....	.....	.....	.....
Hornell.....	15,025	1	.....	.....	17	.....	.....	.....	.....	1
Hudson.....	11,745	7	.....	.....	.....	.....	.....	.....	1	.....
Ithaca.....	17,004	9	.....	.....	.....	.....	.....	.....	1	.....
Jamestown.....	38,917	7	1	.....	22	.....	.....	1	1	1
Lackawanna.....	17,918	10	1	.....	1	.....	.....	.....	1	.....
Lockport.....	21,308	2	.....	.....	.....	.....	.....	.....	.....	.....
Middletown.....	18,420	.....	.....	.....	.....	.....	.....	.....	1	.....
Mount Vernon.....	42,726	10	.....	.....	26	.....	3	.....	.....	.....
Newburgh.....	30,366	15	.....	.....	2	.....	.....	.....	.....	1

## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Popula- tion Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
New York—Continued.										
New York.....	5,621,151	1,508	320	34	2,214	61	359	5	1,260	1,105
Niagara Falls.....	50,760	11			24		11		3	
North Tonawanda.....	15,482	5					5			
Ogdensburg.....	14,609	9								1
Olean.....	20,506	6	2							
Peekskill.....	15,868	5			2		5			
Port Chester.....	16,573	7								1
Poughkeepsie.....	35,000	13			6				1	2
Rochester.....	295,750	75	3		34		2		37	4
Rome.....	26,341	9	4				1			1
Saratoga Springs.....	13,181	6								
Schenectady.....	88,723	14			1		8			1
Syracuse.....	171,717	56	21	1	1		16	2	5	2
Troy.....	72,013	27	3				1		3	
Watertown.....	31,285	12					1		3	
White Plains.....	21,031	4			14		1			
Yonkers.....	100,226	27	2	1	52	1	4		1	1
North Carolina:										
Charlotte.....	46,338	13	1				1		2	1
Durham.....	21,719	5							2	
Greensboro.....	19,861	4								
Raleigh.....	24,418	11								2
Rocky Mount.....	12,742	5								
Salisbury.....	13,884	6								
Wilmington.....	33,372	9	2							
Winston-Salem.....	48,395	20							1	4
Ohio:										
Akron.....	208,435	42	5		94		9			
Ashtabula.....	22,082	7								
Barberton.....	18,811	5								
Bucyrus.....	10,425	3								
Cambridge.....	13,104	5			4					
Canton.....	87,091	16	5		37					
Chillicothe.....	15,831	1								
Cincinnati.....	401,247	116	6		150	1	3		25	15
Cleveland Heights.....	15,236				14		5			
Columbus.....	237,031	76	10		19		1		5	4
Dayton.....	152,559	41	3		3		3		3	
East Cleveland.....	27,292	5			10					
East Youngstown.....	11,237	4								
Findlay.....	17,021	2								
Fremont.....	12,468	2								
Hamilton.....	39,675	13	1		6				2	1
Ironton.....	14,007	7								
Kenmore.....	12,683				9		1			
Lakewood.....	41,732	5			7		2			
Lancaster.....	14,706	6	1						1	
Lima.....	41,306	9	2				1			
Lorain.....	37,295				1		3			
Mansfield.....	27,824	7							1	1
Martins Ferry.....	11,634	1							1	
Middletown.....	23,594	5							2	
Newark.....	26,718	2	2							
Niles.....	13,080	1			1					
Norwood.....	24,966	3			15					
Piqua.....	15,044	5								
Salem.....	10,305	1			2		2			
Sandusky.....	22,897	2			1				1	
Springfield.....	60,840	10							2	1
Steubenville.....	28,506	6	1							
Toledo.....	243,109	61	10		62		11		17	5
Youngstown.....	132,358	32	1	1	20	1	1		4	
Zanesville.....	29,569	8	2							
Oklahoma:										
Oklahoma.....	91,258	13	1				1			
Oregon:										
Portland.....	256,288	78	7		3		6		6	6
Pennsylvania:										
Allentown.....	73,502		5		4		1		1	
Altoona.....	60,331		3				4			
Berwick.....	12,181		1		23		1			
Bethlehem.....	50,358						2			

¹ Pulmonary tuberculosis only.



## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Pennsylvania—Continued.										
Braddock.....	20, 879		1				2			
Bristol.....	10, 273				11					
Carlisle.....	10, 916				92					
Carrick.....	10, 504				1					
Chambersburg.....	13, 171				1					
Chester.....	58, 030				6		1			
Connellsville.....	13, 804								3	
Dubois.....	13, 681						2			
Duquesne.....	19, 011						1		2	
Easton.....	33, 813				21		1		1	
Erie.....	93, 372		3		2		4		1	
Farrell.....	15, 586				1					
Greensburg.....	15, 033									
Harrisburg.....	75, 917				5		1		1	
Hazleton.....	32, 277		1		21					
Johnstown.....	67, 327		1		21		1		1	
Lancaster.....	53, 150				1		6			
McKeesport.....	45, 675		2		18				2	
McKee's Rocks.....	16, 713		1							
Monessen.....	18, 179		1							
New Castle.....	44, 938				96					
New Kensington.....	11, 987				4					
Norristown.....	32, 319		1				1			
Oil City.....	21, 274								4	
Philadelphia.....	1, 823, 158	487	55	5	93	3	89		66	54
Phoenixville.....	10, 484				1		2			
Pittsburgh.....	588, 193		20		115		33		20	
Plymouth.....	16, 500		3		9					
Pottstown.....	17, 431						2			
Punxsutawney.....	10, 311								1	
Reading.....	107, 784		5		13		1		2	
Scranton.....	137, 783		4		15		1		5	
Shamokin.....	21, 204				19					
Sharon.....	21, 747				2		1			
Shenandoah.....	24, 726		1		38					
Steelton.....	13, 428				1					
Sunbury.....	15, 721				15					
Swissvale.....	10, 908				1		1			
Tamaqua.....	12, 363				7					
Uniontown.....	15, 692				1		2			
Washington.....	21, 480		1				2			
Wilkes-Barre.....	73, 833		1		15					
Wilkinsburg.....	24, 403				1		1			
Williamsport.....	36, 198				16		1			
Woodlawn.....	12, 495								1	
York.....	47, 512						1		1	
Rhode Island:										
Cranston.....	29, 407	8					1			
East Providence (town).....	21, 793		2							
Newport.....	30, 255									1
Pawtucket.....	61, 248	11					1			
Providence.....	237, 595	63	10	1	9		7			4
South Carolina:										
Charleston.....	67, 957	35								4
Columbia.....	37, 524		1						1	
South Dakota:										
Sioux Falls.....	25, 176	11			1		1			
Tennessee:										
Chattanooga.....	57, 859		1							
Knoxville.....	77, 818		2		12					
Memphis.....	162, 351	56	2				1		14	10
Nashville.....	118, 312	31							3	6
Texas:										
Beaumont.....	40, 422	7								2
Corpus Christi.....	10, 522	3					2			
Dallas.....	158, 976	37	3		96				6	2
El Paso.....	77, 543	45	2		1		1			14
Fort Worth.....	106, 482	23	1		1		1		3	2
Galveston.....	44, 255	7	1							
Houston.....	138, 076	33					1			1
Waco.....	38, 500	3								
Utah:										
Salt Lake City.....	118, 110	22	4				1			

## CITY REPORTS FOR WEEK ENDED MAY 6, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Vermont:										
Barre.....	10,008	6					1			
Burlington.....	22,770	3								1
Rutland.....	14,954									
Virginia:										
Alexandria.....	18,060	2								
Danville.....	21,539	6								1
Lynchburg.....	29,956	8	2							1
Norfolk.....	115,777	1	1		1		4		5	2
Petersburg.....	31,002	11								1
Portsmouth.....	54,387	12								2
Richmond.....	171,667	46			101		1		4	3
Roanoke.....	50,842	11								1
Washington:										
Everett.....	27,644		1							
Seattle.....	315,652						6		31	
Spokane.....	104,437		4				6			
Tacoma.....	90,965								8	
Walla Walla.....	15,503						1			
West Virginia:										
Bluefield.....	15,282	9	1				1			
Charleston.....	39,606	14	3	1			2		1	2
Clarksburg.....	27,869	7			2		1			1
Fairmont.....	17,851		1		2		2			
Huntington.....	50,177	9					1			
Martinsburg.....	12,515				2					
Morgantown.....	12,127								4	
Moundsville.....	10,669	4	2		10		1			
Parkersburg.....	20,050	6	2							
Wheeling.....	54,322	15	3				1		5	
Wisconsin:										
Beloit.....	21,284	6	1				3			
Fond du Lac.....	23,427	4								
Janesville.....	18,293	7			1				3	2
Kenosha.....	40,472	6	5		1				2	
La Crosse.....	30,363						1			
Madison.....	38,378						2			
Manitowish.....	17,963		1							
Marquette.....	13,610									
Milwaukee.....	457,147		9		5		13		17	
Oshkosh.....	33,162	8								
Racine.....	58,593	7	3		1				2	1
Sheboygan.....	30,955		3				2			
Superior.....	39,624	7								
Waukesha.....	12,558						2			
Wausau.....	18,061						1			
West Allis.....	13,765									
Wyoming:										
Cheyenne.....	13,829	2								

## FOREIGN AND INSULAR.

### CANADA.

#### Communicable Diseases—Ontario—April, 1922.

The following table shows the number of cases of communicable diseases occurring in the Province of Ontario, Canada, during the month of April, 1922, as compared with the number reported for the corresponding month of the year 1921. The number of deaths from these diseases is also shown. Population, estimated, 2,523,200.

Disease.	April, 1922.		April, 1921.	
	Cases.	Deaths.	Cases.	Deaths.
Cerebrospinal meningitis.....	9	8	7	6
Diphtheria.....	308	27	409	34
Influenza.....		89		
Measles.....	1,206	8	284	
Pneumonia.....		372		250
Pneumonia (influenza complications).....		30	90	30
Polio-myelitis.....	1	1		
Scarlet fever.....	249	11	365	7
Smallpox.....	79		382	2
Tuberculosis.....	207	135	196	121
Typhoid fever.....	13	7	32	5
Whooping cough.....	69	8	165	16

#### Smallpox—Distribution of Cases—April, 1922.

The 79 cases of smallpox occurring in the Province of Ontario during the month of April, 1922, were distributed in 18 municipalities, the largest number of cases, viz, 35; occurring in Toronto. In 10 municipalities only 1 case each was reported.

#### Venereal Diseases—April, 1922.

During the month of April, 1922, 6 cases of chancroid, 165 of gonorrhea, and 194 of syphilis were reported in the Province of Ontario. The reported occurrence during April, 1921, was as follows: Chancroid, 1 case; gonorrhea, 236 cases; syphilis, 219 cases.

### JAMAICA.

#### Alastrim.<sup>1</sup>

During the four weeks ended April 29, 1922, 74 new cases of alastrim were reported in the island of Jamaica.

#### Typhoid Fever—Kingston and Vicinity.

During the period under report 15 cases of typhoid fever were reported in Kingston and 68 cases in the surrounding country.

<sup>1</sup> Public Health Reports, April 28, 1922, page 1043.

## PORTUGAL.

## Plague (Pneumonic)—Lisbon—February, 1922.

During the month of February, 1922, six cases of pneumonic plague, occurring in persons belonging to the same family, were reported at Lisbon, Portugal.

## UNION OF SOUTH AFRICA.

## Smallpox—Typhus Fever—February, 1922.

During the month of February, 1922, smallpox and typhus fever were reported as follows in the Union of South Africa: *Smallpox*—16 cases occurring in the colored population. *Typhus fever*—425 cases with 47 deaths occurring among the colored population. Among the white population, two cases with one death were reported in the Cape Province, and one death in Natal was reported. (For distribution according to States, see table, page 1283.)

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During Week Ended May 25, 1922.<sup>1</sup>

## CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Madras.....	Apr. 2-8.....	4	1	
Philippine Islands:				
Manila.....	Apr. 2-15.....	2	1	
Syria.....				Apr. 16-22, 1922: Reported present in interior cities.

## PLAGUE.

Asia Minor:				
Smyrna.....	Apr. 9-15.....	1		
Australia:				
Queensland—				
Brisbane.....				Apr. 2-8, 1922: Plague-infected rats found; 6.
Brazil:				
Bahia.....	Mar. 12-25.....	2	1	
Ceylon:				
Colombo.....	Apr. 2-8.....	1	1	
China:				
Hongkong.....	May 7-13.....	118	74	Mar. 12-Apr. 1, 1922: Cases, 57; deaths, 34. Jan. 1-Apr. 20, 1922: Cases, 70; deaths, 31.
Egypt:				
City—				
Alexandria.....	Apr. 15-18.....	4	1	
Suez.....	Apr. 16-18.....	3		
Province—				
Minieh.....	Apr. 19.....	1		
India:				
Karachi.....	Apr. 2-8.....	68	55	Mar. 12-18, 1922: Cases, 2,032; deaths, 2,379.
Madras Presidency.....	Apr. 2-8.....	36	21	
Mexico:				
Tampico.....				Apr. 30-May 6, 1922: 1 plague-infected rat. Total reported, Jan. 1-May 6, 1922, 16.
Portugal:				
Lisbon.....	Feb. 1-28.....	6		Pneumonic; occurring in same family.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received During Week Ended May 26, 1922—Continued.**

## **SMALLPOX.**

Place.	Date.	Cases.	Deaths.	Remarks.
Asia Minor:				
Smyrna.....	Apr. 9-15.....	8		
Canada:				
New Brunswick—				
Madawaska County....	Apr. 30-May 6....	1		
Ontario.....	May 7-13.....	2		Apr. 1-30, 1922: Cases, 79.
Niagara Falls.....	Apr. 30-May 6....	19		
Toronto.....				
China:				
Canton.....	Feb. 1-Mar. 31.....			Present.
Chungking.....	Mar. 12-25.....			Do.
Foochow.....	Mar. 26-Apr. 1.....			Do.
Hongkong.....	Mar. 19-Apr. 8.....	22	13	
Manchuria—				
Dairen.....	Mar. 27-Apr. 9.....	2		
Harbin.....	Mar. 27-Apr. 2.....	1		
Nanking.....	Mar. 26-Apr. 8.....			Do.
Shanghai.....	Apr. 2-9.....	1		
Chosen (Korea):				
Fusan.....				Apr. 1-30, 1922: Cases, 83; deaths, 30.
Dominican Republic:				
Santo Domingo.....	Apr. 30-May 6....			In surrounding country present, with 4 reported deaths.
Great Britain:				
Sheffield.....	Apr. 23-29.....	3		
India:				
Karachi.....	Apr. 2-8.....	41	24	
Madras.....	do.....	141	49	
Java:				
West Java—				
Batavia.....	Mar. 24-30.....	3	3	
Mexico:				
Monterey.....	Apr. 25-May 1.....		9	All in children, 1 month to 6 years.
Persia:				
Teheran.....				May 22-Nov. 22, 1921; Deaths, 23.
Portugal:				
Lisbon.....	Apr. 3-22.....	10	1	
Spain:				
Seville.....	Apr. 10-20.....		14	
Union of South Africa:				
Cape Province.....	Mar. 12-18.....			Feb. 1-23, 1922: Cases, 16.
Natal.....	do.....			Outbreaks.
Transvaal.....	Mar. 12-25.....			Do.

## **TYPHUS FEVER.**

Egypt:				
Alexandria.....	Apr. 13-19.....	2	1	
Syria.....				Apr. 16-22, 1922: Reported present in interior cities.
Union of South Africa:				
				Feb. 1-23, 1922: Cases, 425; deaths, 47, in colored population. Cases, 2; deaths, 2, in white population.
Cape Province.....	Mar. 12-25.....			Outbreaks. Feb. 1-23, 1922: Cases, 357; deaths, 41, colored. Cases, 2; deaths, 1, white.
Natal.....				Feb. 1-23, 1922: Cases, 5, colored; white, 1 death.
Orange Free State.....	Mar. 12-18.....			Outbreaks. Feb. 1-23, 1922: Cases, 43; deaths, 3, colored.
Transvaal.....				Feb. 1-23, 1922: Cases, 20; deaths, 3, colored.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 19, 1922.**

## **CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				Oct. 2-Dec. 31, 1921: Deaths, 37,749. (Corrected report.)
Bombay.....	Oct. 30-Nov. 5.....	1		Jan. 1-25, 1922: Deaths, 2,828.
Do.....	Jan. 29-Feb. 4.....	1	1	
Calcutta.....	Oct. 23-Dec. 31.....	71	60	
Do.....	Jan. 1-Apr. 1.....	443	308	
Karachi.....	Nov. 6-12.....	1	1	
Madras.....	Dec. 11-31.....	4	1	
Do.....	Jan. 1-Mar. 26.....	11	8	
Rangoon.....	Oct. 1-Dec. 31.....	30	24	
Do.....	Jan. 1-Mar. 25.....	39	32	
Indo-China:				
Saigon.....	Nov. 6-12.....	1	1	
Do.....	Jan. 29-Mar. 18.....	34	30	Including 100 km. surrounding country.
Java:				
West Java—				
Batavia.....	Nov. 1-7.....	2	2	At Lebak.
Philippine Islands:				
Manila.....	Nov. 13-Dec. 31.....	49	18	
Do.....	Jan. 1-Mar. 11.....	82	27	
Province—				
Bulacan.....	Dec. 25-31.....	1		
Do.....	Feb. 12-Mar. 11.....	3	3	
Cavite.....	Jan. 1-7.....	1	1	
Cebu.....	Jan. 8-14.....	1		
Pampanga.....	Dec. 25-31.....	1		
Rizal.....	Jan. 15-28.....	19	12	
Zambales.....	Dec. 11-31.....	31	18	
Do.....	Jan. 1-7.....	5	4	
Poland.....				Aug. 14-Sept. 10, 1921: Cases, 4; deaths, 1.
Russia:				
Kharkoff.....	Jan. 28.....			Present.
Kief.....	Dec. 15-Jan. 11.....	259		
Lettonia—				
Riga.....				At quarantine station in October, 1921: 1 case.
Lithuania.....				Present, Feb. 19, 1922, with 30 cases and mortality of 33 per cent, Kovno and vicinity.
Odessa.....	Jan. 28.....			Present.
Siam:				
Bankok.....	Oct. 23-Dec. 21.....	8	4	
Do.....	Jan. 29-Mar. 11.....	9	4	

## **PLAGUE.**

Asia Minor:				
Smyrna.....	Nov. 27-Dec. 3.....	1	1	
Australia:				
New South Wales—				
Sydney.....	.....do.....	2	1	Dec. 7-13: 4 plague rats. Jan. 15-21, 1922: 1 plagues rat.
Do.....	Jan. 29-Apr. 29.....	15	2	
Queensland—				
Aramac.....	Mar. 19-25.....	1	1	Inland town on railroad about 150 miles from coast.
Brisbane.....	Oct. 30-Dec. 31.....	27	20	Total, Aug. 22-Dec. 31, 1921: Cases, 41; deaths, 27. Total infected rats, 51. Total cases, Jan. 1-Mar. 18, 1922: 10. Total infected rats, 10.
Do.....	Jan. 1-Mar. 18.....	10		
Bundaberg.....	Mar. 5-11.....	1		
Cairns.....	Oct. 30-Dec. 31.....	6	3	Plague rats, 9
Do.....	Jan. 1-7.....	1		Pestis minor
Cooktown.....	Oct. 30-Nov. 5.....	1		
Ingham.....				Nov. 6-Dec. 24, 1921: Plague rats 14, Jan. 1-14, 1922: 2 plague rats.
Inisfail.....				Nov. 27-Dec. 8, 1921: 1 plague rat.
Ipswich.....	Dec. 11-17.....	1	1	
Port Douglas.....	Nov. 13-19.....	1		
Townsville.....	Nov. 20-Dec. 3.....	2	2	Total cases, 27; deaths, 18.
Do.....	Jan. 1-14.....		2	To Jan. 14, 1922: Cases, 32; deaths, 21.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to May 19, 1922—Continued.

## PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Azores:				
Islands—				
Fayal.....	Jan. 15-22.....	2	2	
Horta.....	Feb. 2-8.....	4	2	
St. Michael.....				Nov. 27-Dec. 31, 1921: Cases, 23; deaths, 9. Jan. 1-21, 1922: Cases, 13; deaths, 8. Jan. 22-Apr. 1, 1922: Cases, 62; deaths, 31; occurring at Arrifes, Capelas, Feneas, Ribeira Grande, and Santo Antonio; distance from port of Ponta Delgada, 3 to 9 miles.
Arrifes.....	Dec. 25-31.....	1	1	3 miles from port.
Do.....	Jan. 1-7.....	1		
Feneas d'Ajuda.....	Nov. 27-Dec. 3.....			Present. 6 miles from port.
Do.....	Jan. 15-21.....	3	2	
Ribeira Grande.....	Nov. 13-Dec. 10.....	19	8	9 miles from port.
Do.....	Jan. 8-14.....	9	6	
Livramento.....	Dec. 4-10.....	2		Vicinity of Ponta Delgada.
Ponta Delgada.....	Do.....	1		
Brazil:				
Bahia.....	Oct. 30-Dec. 31.....	13	12	
Do.....	Jan. 1-Mar. 2.....	14	11	
Para.....	Feb. 6-12.....		1	
Pernambuco.....	Feb. 26-Mar. 4.....	1	1	
Porto Alegre.....	Feb. 12-18.....	3	2	
Rio de Janeiro.....	Jan. 22-28.....	1	1	
British East Africa:				
Uganda.....	Aug. 1-Dec. 31.....	256	229	Aug. 1-Oct. 31, 1921: Reports of inspectors, deaths, 313; reports of chiefs, deaths, 651.
Do.....	Jan. 1-31.....	57	56	
Cape Verde Islands:				
St. Vincent.....	Mar. 16.....			Present. No plague mortality reported during previous 5-month period. August, 1921: Cases, 6; deaths, 3.
Ceylon:				
Colombo.....	Oct. 30-Dec. 31.....	13	10	Oct. 30-Dec. 24, 1921: Rodent plague, 6.
Do.....	Jan. 1-Apr. 1.....	29	27	Infected rats, 12.
Chile:				
Antofagasta.....				Mar. 5-11, 1922: 1 plague rat.
China:				
Amoy.....	Feb. 18-Mar. 4.....			Present in surrounding country
Hongkong.....	Nov. 20-Dec. 17.....	6		
Do.....	Jan. 1-May 6.....	409	238	
Ecuador:				
Guayaquil.....	Nov. 16-Dec. 31.....	18	6	Rats examined, 2,958; found infected, 90. Total, July-Dec. 15, 1921: Cases, 28. Jan. 1-Apr. 15, 1922: Rats examined, 21,000; found infected, 575.
Do.....	Jan. 1-Apr. 15.....	43	15	
Naranjito.....	Mar. 1-15.....	1		
Egypt:				
City—				
Alexandria.....	Dec. 5-30.....	7	2	Jan. 1-Dec. 31, 1921: Cases, 356; deaths, 153. Jan. 1-Apr. 6, 1922: Cases, 63; deaths, 30.
Do.....	Jan. 17-Mar. 16.....	8	5	Feb. 12-18, 1922: 1 plague rodent.
Port Said.....	Dec. 20.....	1		Mar. 12-16, 1922: 1 case, 1 death, septicemic.
Do.....	Mar. 15-21.....	2	2	
Suez.....	Nov. 22-Dec. 31.....	16	9	
Do.....	Jan. 2-Apr. 8.....	13	7	
Province—				
Assiout.....	Mar. 25.....	1	1	Septicemic.
Assouan.....	Feb. 28.....	1	1	Do.
Fayoum.....	Feb. 17-Mar. 9.....	5	1	
Gharbieh.....	Feb. 17-Mar. 27.....	5	1	
Girgeh.....	Jan. 12-Mar. 30.....	5		Do.
Keneh.....	Dec. 1.....	1		Do.
Do.....	Jan. 21-Feb. 28.....	5	3	Pneumonic, 1 case, 1 death; septicemic, 1 case.
Minieh.....	Feb. 21-Apr. 12.....	4	3	Septicemic.
France:				
Dunkirk.....	Mar. 24.....		1	In hospital, from s. s. City of Genoa, from Bombay.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 19, 1922—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Great Britain: Liverpool.....				Mar. 31, 1922: Finding of 3 plague-infected rats reported; in warehouse in which material from s. s. Warwickshire was stored. <sup>1</sup>
Greece: Preveza.....	Feb. 8.....			Outbreak. Port on the Ionian Sea.
India.....				Oct. 23-Dec. 31, 1921: Cases, 11,229; deaths, 8,465. Jan. 1-Mar. 11, 1922: Cases, 26,838; deaths, 21,056.
Bombay.....	Oct. 23-Dec. 24.....	7	6	
Do.....	Jan. 1-Mar. 11.....	147	113	
Calcutta.....	Jan. 29-Apr. 1.....	20	20	
Karachi.....	Nov. 6-Dec. 31.....	5	5	
Do.....	Jan. 1-Apr. 1.....	213	100	
Madras.....	Dec. 11-17.....	1		
Madras Presidency.....	Nov. 13-Dec. 31.....	2,647	1,438	
Do.....	Jan. 1-Apr. 1.....	3,941	2,817	
Rangoon.....	Oct. 1-Dec. 31.....	139	129	
Do.....	Jan. 1-Mar. 25.....	301	268	
Indo-China: Saigon.....				Nov. 6-Dec. 24, 1921: Rodent plague, 10. Jan. 8-Mar. 18, 1922: Rodent plague, 12.
Italy: Catania.....	Nov. 27.....	1	1	Total, Oct. 16-Nov. 27, 1921: Cases, 8 (of which 1 doubtful); deaths, 5. Jan.-Feb., 1922: 28 plague-infected rats found.
Naples (Province)— Torre Annunziata.....	Oct. 22-Dec. 27.....	2		17 miles from city of Naples.
Venice.....	Oct. 27.....	1		
Java.....				Islands of Java and Madoera; Nov. 1-Dec. 31, 1921: Deaths, 1,781. Jan. 1-Feb. 28, 1922: Deaths, 2,571.
East Java— Soerabaya.....	Oct. 30-Dec. 10.....	11	12	
Do.....	Jan. 1-Mar. 11.....	13	13	
Madagascar: Tananarive.....	Jan. 23-Feb. 29.....	9	5	Bubonic, pneumonic, and septicemic.
Mauritius (Island).....				Jan. 23-Feb. 6, 1922: Cases, 12; deaths, 3.
Port Louis.....	Oct. 29-Dec. 30.....	241	142	Plague-infected rats, 176; plague-infected cats, 36. (Corrected report.) Dec. 1-30, 1921: Dead rats found, 155; dead cats, 4.
Do.....	Dec. 31-Jan. 22.....	16	6	Dead rats found, Dec. 31, 1921-Jan. 11, 1922, 17.
Mesopotamia: Bagdad.....	Oct. 1-31.....	1	1	
Do.....	Feb. 1-28.....	2	1	
Mexico: Tampico.....				Dec. 18-31, 1921: Infected rodents found, 5; total, Jan. 1-Dec. 3, 1921, infected rodents, 322; Jan. 1-Apr. 8, 1922, 14 plague-infected rodents.
Vera Cruz.....				One infected rodent caught Dec. 5, 1921. Apr. 4-28, 1922: 3 infected rodents found.
Peru.....				Nov. 17-Dec. 31, 1921: Cases, 94; deaths, 35. Occurring in Callao, Huacho, Huancas, Lima, Magdalena Vieja, Paiza, Salaverry, and Sechura, Jan. 1-Feb. 28, 1922: Cases, 141; deaths, 62. (Corrected report to Feb. 15, 1922.) Mar. 16-31, 1922: Cases, 28; deaths, 14.
Localities— Bambamarca.....	Jan. 1-15.....			Present. Rural.
Barranco.....	Jan. 16-31.....	1		
Callao.....	Jan. 1-Feb. 28.....	7	4	Rural. Year, 1921: Deaths, 30.
Casma.....	Feb. 1-28.....	11	3	
Chiclayo.....	Jan. 16-Feb. 28.....	19	16	

<sup>1</sup> Public Health Reports, Mar. 31, 1922, p. 784.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 19, 1922—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Peru—Continued.</b>				
<b>Localities—Continued.</b>				
Chilca.....	Jan. 16-Feb. 15....	11	2	
Cutervo.....	Jan. 1-15.....	1		Rural.
Guadalupe.....	Jan. 1-31.....	7	2	
Huacho.....	Jan. 1-Feb. 15....	3		
Hualgayoc.....	Jan. 16-31.....			Province. Present.
Huara.....	Jan. 1-15.....	2		
Jayanca.....	do.....			Present.
Lambayeque.....	Jan. 16-Feb. 15....	3	1	
Lima.....	Jan. 1-Feb. 28....	14	4	In district, 20 cases, 6 deaths.
Mollendo.....	Feb. 1-28.....	3		
Pacasmayo.....	do.....	1		
Payta.....	Jan. 1-Feb. 28....	28	21	
Piura.....	Feb. 1-15.....	1		
Salaverry.....	Jan. 16-31.....	1		
San Pedro.....	Jan. 1-15.....	1		
Sullana.....	Jan. 1-Feb. 28....	3	3	
Trujillo.....	Feb. 1-15.....			Present.
Tumbes.....	do.....	4		
<b>Portugal:</b>				
Lisbon.....	Dec. 15.....	1	1	
<b>Portuguese West Africa:</b>				
<b>Angola—</b>				
Loanda.....	Oct. 9-Nov. 5.....		2	
Do.....	Jan. 29-Feb. 4.....		2	
Mossamedes.....	Feb. 14.....			Present. In vicinity Mar. 1-22, 1922: Cases, 11. No cases reported in city since Feb. 28, 1922.
Rhodes (Island) (Aegean Sea).....	Oct. 13.....	3	1	
<b>Senegal:</b>				
Dakar.....	Jan. 1-Mar. 31....	4	1	
<b>Siam:</b>				
Bangkok.....	Oct. 23-Dec. 31....	7	6	
Do.....	Jan. 8-Mar. 11....	37	28	
<b>Straits Settlements:</b>				
Singapore.....	Nov. 6-Dec. 31....	3	3	
Do.....	Jan. 15-Mar. 18....	37	18	
<b>Syria:</b>				
Beirut.....	Oct. 9-Nov. 20....	10	4	
<b>Turkey:</b>				
Constantinople.....	Jan. 1-7.....	1		Mar. 26-Apr. 1, 1922: One death.
<b>Union of South Africa:</b>				
<b>Orange Free State—</b>				
Boschrand Farm.....	Jan. 15.....	3	3	10 miles from Kroonstad.
Bothaville.....	Nov. 19.....			Plague-infected mouse found.
Geluksfontein Farm.....	Feb. 25.....			Plague mortality among rodents.
Granville Farm.....	Mar. 1-15.....	4	4	Winburg district, vicinity of Ventersburg Road Station.
Hoopstad.....	Dec. 4-10.....	1		In native herd boy.
Klipfontein Farm.....	Feb. 10.....	1	1	12 miles from Bothaville. Plague infection found in rats on adjoining farm, week ended Feb. 4, 1922.
Rientfontein Farm.....	Feb. 17.....			Plague-infected squirrel found.
<b>On vessel:</b>				
Steamship City of Genoa....	Mar. 9-15.....	4	2	At Suez and Port Said, Egypt, from Karachi and Bombay, India, for Plymouth, England: One fatal case at sea en route to Suez; 1 case on arrival. At Port Said, 2 cases, of which 1 fatal. At Dunkirk, France, Mar. 24, 1922: Several cases, one fatal case in hospital at Dunkirk.
Steamship Polycarp.....	Feb. 3.....	1		At Para, Brazil, from Ceara, via Manaus, Maranham, and Para; for New York.
Steamship Tango Maru....	Dec. 31.....	1		At Thursday Island Quarantine, Australia, from Kobe, via Nagasaki, Hongkong, Manila, and Zamboanga.
Steamship Warwickshire....	Feb. 12.....			At Liverpool, England, from Rangoon. Plague rats, 27; 1 plague mouse.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 19, 1922—Continued.**

## **SMALLPOX.**

Place.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Algiers.....	Jan. 1-Mar. 31....	4		
Arabia:				
Aden.....	Dec. 25-31.....		1	
Do.....	Jan. 8-Apr. 1.....		2	
Asia Minor:				
Smyrna.....	Jan. 15-21.....	1		In district.
Bolivia:				
La Paz.....	Aug. 1-Dec. 31....	60	41	
Do.....	Jan. 1-Feb. 28....	32	21	
Brazil:				
Bahia.....	Nov. 6-Dec. 17....	4		
Do.....	Jan. 8-Feb. 4.....	2		
Rio de Janeiro.....	Nov. 13-Dec. 31..	13	2	
Do.....	Jan. 1-Apr. 1.....	50	16	
Santos.....	Feb. 20-26.....		1	
Sao Paulo.....	Oct. 31-Dec. 25....	11		
Do.....	Dec. 26-Jan. 8.....	2		
British East Africa:				
Uganda.....	Aug. 1-Dec. 31....	33	6	
Do.....	Jan. 1-31.....	36	3	
Canada:				
British Columbia—				
Vancouver.....	Dec. 25-31.....	3		
Do.....	Jan. 20-Feb. 4.....	1		
Victoria.....	Mar. 12-18.....	1		
Manitoba.....				Year 1921: Cases, 71.
Winnipeg.....	Nov. 20-Dec. 3....	2		
Do.....	Apr. 2-8.....	3		
New Brunswick—				
Charlotte County.....				Dec. 17, 1921: 31 cases occurring at Andersonville and Blacks Harbor. Dec. 18-24, 1921: Cases, 3. Dec. 25-31, 1921: Cases, 2. Feb. 19-20, 1922: Cases, 2.
St. Stephen.....	Dec. 11-17.....	2		Dec. 11-31, 1921: Cases, 3. Feb. 12-25, 1922: Cases, 4. 20 miles from Campbellton.
Restigouche County.....				
Charlo.....	Feb. 19-25.....	2		
Westmoreland County.....	Mar. 5-Apr. 1.....	23		
York County.....	Dec. 11-17.....	1		
Do.....	Jan. 29-Feb. 4.....	1		
Ontario.....				Dec. 1-31, 1921: Cases, 128. Jan. 1-31, 1922: Cases, 170. Feb. 1-Mar. 31, 1922: Cases, 298.
Fort William and Port Arthur.....	Jan. 1-21.....	3		
Hamilton.....	Jan. 22-Mar. 25....	4		
Kingston.....	Jan. 17-Feb. 11....	5		
Niagara Falls.....	Dec. 11-24.....	2		
Do.....	Jan. 15-Apr. 22....	47		Jan. 16-20, 1922: Two cases reported.
North Bay.....	Feb. 12-18.....	1		
Ottawa.....	Dec. 11-24.....	17		
Do.....	Jan. 1-Apr. 15....	34		
Sault Ste. Marie.....	Jan. 15-21.....	1		
Toronto.....	Dec. 11-24.....	4		
Do.....	Jan. 1-Apr. 29....	82		
Windsor.....	Jan. 6-Mar. 4.....	3		
Quebec—				
Montreal.....	Dec. 11-24.....	1		
Saskatchewan—				
Regina.....	Jan. 1-Feb. 11....	4		
Saskatoon.....	Dec. 1-18.....	6		
Do.....	Feb. 5-18.....	3		
Canal Zone:				
Ancon.....				Admitted to hospital by transfer from Panama, Nov. 30, 1921, 1 case. Arrived on sailing vessel from a village on south coast.
Ceylon:				
Colombo.....	Nov. 27-Dec. 3....	1		Port case.
Do.....	Jan. 29-Apr. 1.....	7		One port case.
Chile.....				Jan.-Sept., 1921: Cases, 5,500 (approximately); deaths, 2,500 (approximately). Nov. 15-21, 1921: Diffused in southern Provinces; not epidemic.
Concepcion.....	Nov. 23-Dec. 26....		25	Nov. 15-21, 1921: Present. In vicinity, at Hualqui, cases, 32; deaths, 5. Dec. 4-17, 1921: Present.
Do.....	Dec. 27-Mar. 13....		42	



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to May 19, 1922—Continued.

## SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Chile—Continued.				
Coronel.....	Nov. 15-Dec. 17...	.....	.....	Present.
Curanilahue.....	Nov. 15-21.....	4	.....	
Lota.....	.....	.....	.....	Oct. 28, 1921-Jan. 31, 1922: Cases, 879; deaths, 338.
Ollague.....	Mar. 12-25.....	1	.....	Reported Mar. 16.
Osorno.....	.....	.....	.....	From beginning of outbreak to Feb. 15, 1922: Cases, 87.
Talcahuano.....	Nov. 15-Dec. 24.....	6	.....	Jan. 8-28, 1922: Present.
Do.....	Jan. 20-Feb. 18.....	5	.....	From beginning of outbreak to Feb. 15, 1922: Cases, 122.
Temuco.....	Nov. 15-21.....	9	.....	
Valparaiso.....	Oct. 23-Dec. 31.....	.....	94	
Do.....	Jan. 1-Mar. 25.....	.....	30	
China:				
Amoy.....	Nov. 16-Dec. 31.....	.....	7	Nov. 23-29, 1921: Present. Jan. 22-28, 1922: Present.
Do.....	Jan. 1-Apr. 1.....	.....	17	
Antung.....	Nov. 28-Dec. 18.....	4	1	
Do.....	Mar. 19-26.....	1	.....	
Canton.....	Dec. 1-31.....	.....	.....	Present.
Changsha.....	Jan. 16-22.....	1	.....	Do.
Chungking.....	Nov. 6-Dec. 31.....	.....	.....	Do.
Do.....	Jan. 1-Mar. 11.....	.....	.....	Manchuria.
Dairen.....	Mar. 13-19.....	1	.....	Present.
Foochow.....	Nov. 6-Dec. 31.....	.....	.....	Do.
Do.....	Jan. 1-Mar. 25.....	.....	.....	Do.
Hankow.....	Nov. 13-Dec. 31.....	.....	.....	Do.
Do.....	Jan. 1-21.....	2	.....	
Harbin.....	Nov. 14-Dec. 11.....	5	.....	
Do.....	Dec. 26-Mar. 12.....	4	.....	
Hongkong.....	Dec. 3-31.....	5	.....	
Do.....	Jan. 1-Mar. 18.....	53	39	
Mukden.....	Nov. 20-Dec. 31.....	.....	.....	Do.
Do.....	Jan. 15-Mar. 18.....	.....	.....	Do.
Nanking.....	Nov. 20-Dec. 17.....	.....	.....	Do.
Do.....	Jan. 15-Mar. 25.....	.....	.....	Do.
Shanghai.....	Oct. 31-Dec. 31.....	23	194	Cases, foreign; deaths, Chinese and foreign. Population: Native, 700,000; foreign, 24,000. Corrected report.
Do.....	Jan. 2-Apr. 2.....	34	506	Cases, foreign; deaths, native, Jan. 14, 1922: Seriously prevalent.
Tientsin.....	Dec. 11-17.....	2	.....	In Mission Hospital.
Tsingtau.....	Jan. 1-Mar. 19.....	35	14	
Chosen (Korea):				
Fusan.....	Dec. 1-31.....	3	1	
Do.....	Jan. 1-Mar. 31.....	126	29	
Gensan.....	Feb. 1-28.....	1	.....	
Seoul.....	Jan. 1-Mar. 31.....	12	5	
Colombia:				
Cartagena.....	Nov. 22-28.....	.....	1	
Santa Marta.....	Feb. 19-25.....	.....	.....	Present.
Cuba:				
Antilla.....	Dec. 12-31.....	3	.....	Dec. 4-31, 1921: Cases, 361. Jan. 1-31, 1922: Cases, 257.
Do.....	Jan. 8-Feb. 4.....	13	1	At Preston.
Cienfuegos.....	Jan. 22-Apr. 29.....	11	1	Two cases from outside city limits. Apr. 16-22, 1922: Cases 6, found at Senado, about 25 miles distant.
Matanzas.....	.....	.....	.....	In Province, Apr. 16-30, 1922.
Nuevitas.....	Apr. 10-16.....	3	.....	
Santiago.....	Jan. 1-Apr. 30.....	11	1	
Dominican Republic:				
Puerto Plata.....	Jan. 13.....	100	5	Oct. 1-31, 1921: Cases, 653; deaths, 51. Jan. 2-Feb. 4, 1922: Cases, 6,922; deaths, 185.
San Pedro de Macoris.....	Nov. 20-Dec. 31.....	31	1	In district, widely diffused, with 1,000 estimated cases, with 100 deaths.
Do.....	Jan. 14-Apr. 22.....	190	9	Estimate of about 500 cases of smallpox in the district of Macoris; of these, 50 within the city limits.
				Including vicinity. In surrounding country, Feb. 12-25: 66 cases. Feb. 26-Apr. 1: About 60 cases.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 19, 1922—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Dominican Republic—Contd. Santo Domingo.....	Nov. 15-Dec. 5.....			In district, 401 cases estimated. Dec. 17-24, 1921: Present in vicinity. Jan. 9-16, 1922: In surrounding country, 1,745 cases (estimated). Mar. 19-Apr. 1, 1922: About 20 cases, with 1 death, in surrounding country. Apr. 2-15, 1922: Cases, 25 deaths, 8.
Ecuador: Guayaquil.....	Nov. 16-Dec. 3.....	7		And vicinity.
Do.....	Jan. 1-Apr. 15.....	5		
Egypt: Alexandria.....	Nov. 26-Dec. 2.....	1	1	
Cairo.....	do.....	2		
Port Said.....	Dec. 20-26.....	1		Dec. 16-23, 1921: 1 case.
Do.....	Jan. 22-23.....	1		
Finland: Do.....				Nov. 16-30, 1921: 1 case. Feb. 1-15, 1922: Cases, 19. Mar. 1-31, 1922: Cases, 29. Dec. 27, 1921-Jan. 2, 1922: Cases, 2.
Fiume.....				
France: Bordeaux.....	Mar. 31-Apr. 6.....		1	
Great Britain: Manchester.....	Jan. 1-7.....	4		
Nottingham.....	Dec. 4-31.....	18		
Do.....	Jan. 8-Mar. 25.....	10		
Swansea.....	Jan. 17-23.....	2		Imported on vessel from Persian Gulf. Jan. 22-Apr. 8, 1922: A few cases.
Haiti: Cape Haitien.....	Dec. 11-24.....	8		
Do.....	Jan. 1-Feb. 18.....	21	1	
Port au Prince.....	Dec. 11-31.....			Present.
Do.....	Jan. 15-21.....	2		
India: Bombay.....	Oct. 23-Dec. 31.....	3	2	Oct. 2-8, 1921: Deaths, 28. Oct. 23-Nov. 19, 1921: Deaths, 266.
Do.....	Jan. 1-Mar. 11.....	23	5	Nov. 27-Dec. 31, 1921: Deaths, 533. Jan. 1-28, 1922: Deaths, 700.
Calcutta.....	Nov. 13-Dec. 31.....	37	28	
Do.....	Jan. 1-Apr. 1.....	334	238	
Karachi.....	Nov. 11-Dec. 31.....	28	9	
Do.....	Jan. 1-Apr. 1.....	194	109	
Madras.....	Nov. 13-Dec. 31.....	183	59	
Do.....	Jan. 1-Apr. 1.....	1,105	376	
Rangoon.....	Oct. 1-Dec. 31.....	6		
Do.....	Jan. 15-Mar. 25.....	85	2	
Indo-China: Saigon.....	Dec. 18-24.....	1	1	City and district.
Do.....	Jan. 8-Mar. 18.....	17	8	Do.
Italy: Catania.....	Feb. 20-23.....	1		In Province.
Genoa.....	Nov. 10-20.....	1		
Messina— Messina.....	Nov. 28-Dec. 4.....	1		
Pettineo.....	Nov. 14-Dec. 4.....	2		
Venice.....	Jan. 30-Feb. 5.....	2		
Japan: Kobe.....	Jan. 23-Apr. 3.....	4	2	
Nagasaki.....	Mar. 13-19.....	1		
Taiwan Island.....	Dec. 1-31.....	2	1	
Do.....	Feb. 14-Mar. 10.....	2	1	
Yokohama.....	Jan. 9-29.....	3		Corrected report.
Java: East Java— Soerabaya.....	Jan. 1-7.....	4		
West Java— Bandoeng.....	Nov. 18-Dec. 8.....	2		
Batavia.....	Nov. 18-Dec. 22.....	11	9	City and Province.
Do.....	Dec. 30-Mar. 2.....	5	3	In Province: Cases, 23; deaths, 4;
Buitenzorg.....	Nov. 25-Dec. 8.....	7	1	13 cases, with 3 deaths, not locally stated. Feb. 3-Mar. 23, 1922: Cases, 18; deaths, 2.
Krawang.....	Nov. 18-24.....	1		
Lebak.....	Nov. 18-Dec. 8.....	7	4	
Pandeglang.....	Nov. 25-Dec. 1.....		1	
Tangerang.....	Nov. 18-Dec. 8.....	5	1	
Liberia: Grand Bassa County.....	Nov. 30.....			Present at Lower Buchanan.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 19, 1922—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Mesopotamia:				
Bagdad.....	Oct. 1-Nov. 30.....	117	80	Epidemic, with high mortality, November, 1921.
Do.....	Feb. 1-28.....	6	4	
Mexico:				
Chihuahua.....	Dec. 5-11.....		1	
Do.....	Jan. 23-Feb. 19.....		2	
Guadalajara.....	Nov. 1-Dec. 31.....	6		
Do.....	Jan. 1-Mar. 4.....	35	6	
Manzanillo.....	Apr. 25-May 1.....		1	
Mexico City.....	Nov. 20-Dec. 31.....	64		Including municipalities in Federal District.
Do.....	Jan. 1-Mar. 25.....	208		
Monterey.....	Apr. 12.....		2	Epidemic, Apr. 28; estimated about 16 deaths daily.
Saltillo.....	Jan. 29-Apr. 8.....		2	From San Salvador, Zacatecas, 1;
San Luis Potosi.....	Dec. 18-24.....		2	from Tampico, 1.
Do.....	Jan. 8-Apr. 1.....		18	
Torreón.....	Dec. 1-31.....		134	
Do.....	Jan. 1-Feb. 28.....		82	
Newfoundland:				
St. Johns.....	Feb. 4-10.....	1		
Nicaragua:				
Managua.....	Mar. 5.....			Present.
Palestine:				
Jerusalem.....	Jan. 10-Feb. 20.....	27		
Panama:				
Bocas del Toro Province—				
Sursuba.....	Jan. 18-Feb. 8.....	11		Village 24 miles from Almirante.
Chiriqui Province.....	Dec. 22.....			Present.
Do.....	Jan. 23.....			Present with center of prevalence at Boquete Bajo. At Boquete Bajo, Jan. 22-Mar. 23, 1922, 59 admissions to lazaretto. On Mar. 20, 1922, 16 cases of smallpox, confluent type.
Panama.....	Dec. 14.....	1		On Dec. 21, 1921: 1 additional case from country district of Sabanas admitted to hospital. Total admissions, Jan. 1-Dec. 21, 1921, 207.
Peru:				
Lima.....	Nov. 1-Dec. 31.....		3	
Poland.....				Aug. 14-Dec. 31, 1921: Cases, 578; deaths, 140. Exclusive of Brest-Litovsk, Minsk, and Wilno districts.
Portugal:				
Lisbon.....	Nov. 13-Dec. 31.....	48	12	
Do.....	Jan. 1-Apr. 15.....	173	9	1 death in January, 1 in February, 7 deaths in March.
Portuguese East Africa:				
Lourenço Marques.....	Oct. 1-Nov. 5.....	2	4	
Portuguese West Africa:				
Angola—				
Loanda.....	Oct. 9-Dec. 31.....		7	
Do.....	Jan. 1-14.....		3	
Rumania:				
Bucharest.....	Nov. 1-30.....		33	
Cahul.....	Jan. 1-31.....	1		District.
Chisinau.....	Dec. 1-31.....	33		Do.
Do.....	Feb. 1-28.....	17		Do.
Russia:				
Estonia.....	Oct. 1-Dec. 31.....	38		
Do.....	Feb. 1-28.....	1		
Lettonia.....	do.....	75		Name of country officially changed from Latvia to Lettonia.
Do.....	Jan. 1-Feb. 28.....	38		
Senegal:				
Dakar.....	do.....	5	3	
Serbia:				
Belgrade.....	Oct. 2-Nov. 26.....	16	4	
Siam:				
Bangkok.....	Oct. 23-Nov. 5.....	1		
Siberia:				
Vladivostok.....	Feb. 22-28.....	1	1	

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to May 19, 1922—Continued.

## SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Spain:				
Barcelona.....	Jan. 8-14.....		1	
Corunna.....	Apr. 2-8.....		1	
Huelva.....	Oct. 1-Dec. 31.....		3	
Do.....	Jan. 1-Feb. 28.....	1	2	
Malaga.....	Nov. 1-Dec. 31.....		60	
Do.....	Jan. 1-31.....		8	
Seville.....	Nov. 16-Dec. 31.....		7	
Do.....	Jan. 8-Apr. 8.....		68	
Valencia.....	Jan. 22-Mar. 23.....	5	1	
Straits Settlements:				
Singapore.....	Nov. 6-Dec. 24.....	49	13	
Do.....	Jan. 1-Mar. 18.....	189	37	
Switzerland:				
Glarus, Canton.....	Dec. 10.....			Epidemic.
Lucerne.....	Feb. 1-23.....	12		
St. Gall.....	Feb. 12-18.....	1		
Zurich.....	Dec. 10.....	2		In vicinity.
Do.....	Mar. 12-Apr. 8.....	6		
Syria:				
Adana.....	Dec. 18-24.....			Present.
Do.....	Jan. 1-14.....			Do.
Aleppo.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-Apr. 15.....			Do.
Alexandretta.....	do.....			Do.
Beirut.....	Oct. 9-Nov. 13.....	5	2	
Do.....	Jan. 8-Mar. 27.....	24	11	Dec. 29, 1921-Jan. 4, 1922; Cases, 14; deaths, 2.
Cilicia.....	Jan. 6-Feb. 4.....			Present.
Diarbekir.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-Feb. 4.....			Do.
Mersina.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-7.....			Do.
Urfa.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-Feb. 4.....			Do.
Tunis:				
Tunis.....	Nov. 26-Dec. 23.....	17	15	
Do.....	Jan. 1-Apr. 8.....	4	6	
Turkey:				
Constantinople.....	Nov. 27-Dec. 24.....	20	4	
Do.....	Jan. 15-Apr. 8.....	115	23	
Union of South Africa:				
Cape Province.....	Nov. 5-Dec. 31.....			Nov. 1-Dec. 31, 1921: Cases, 326; deaths, 6 (colored). White, 10 cases. Jan. 1-31, 1922: Cases, 37; deaths, 3.
Do.....	Jan. 4-Mar. 11.....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 42; deaths, 1 (colored).
Natal.....	Jan. 8-Feb. 25.....			Outbreaks.
Orange Free State.....	Oct. 23-Dec. 24.....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 200; deaths, 5 (colored).
Do.....	Feb. 5-25.....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 8 (colored).
Southern Rhodesia.....	Dec. 29-Mar. 15.....	290		Outbreaks.
Transvaal.....	Oct. 23-Dec. 31.....			Natives.
Do.....	Jan. 1-Feb. 25.....			Outbreaks.
Johannesburg District.....	Dec. 1-31.....	2		Outbreaks. Dec., 1921: Cases, 15.
Do.....	Jan. 1-Feb. 28.....			Nov. 1-Dec. 31, 1921: Cases, 22 (colored). Among white population, 8 cases, State not designated.
Venezuela:				
Ciudad Bolivar.....	Mar. 22.....	3		Outbreaks.
Yugoslavia:				
Bosnia Herzegovina.....	July 3-9.....	2		July 3-30, 1921: Cases, 37.
Croatia Slavonia.....	do.....	1		
Dalmatia.....	do.....	1		
Serbia.....	do.....	3		
Belgrade.....	Dec. 11-17.....	4		
Do.....	Jan. 1-Feb. 18.....	6		
Slovenia.....	July 3-9.....	1		
Voivodina.....	do.....	3		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 19, 1922—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
On vessels:				
Steamship Empire State...	Apr. 7.....	1	.....	At Honolulu, Hawaii, Mar. 31. In Chinese woman, embarked at Hongkong, Mar. 15, unvaccinated; arrived Shanghai Mar. 19, states did not go ashore; at Kobe Mar. 22; left Yokohama Mar. 24. Case was passed on inspection; developed Apr. 5, 1922.
Steamship Victoria.....	Jan. 16.....	1	1	At Thursday Island Quarantine, Australia. Vessel left Hongkong Jan. 3; case isolated Jan. 10. Vessel left for Townsville, Sydney, and Melbourne. Released at Melbourne Feb. 4, 1922.
Steamship West O'Rowa..	Jan. 5-8.....	3	1	At Kobe, Japan, from Shanghai, China.
Steamship —.....	Jan. 17-23.....	2	.....	At Swansea, Wales, from Persian Gulf.

## **TYPHUS FEVER.**

Algeria:				
Algiers.....	Nov. 1-Dec. 31...	3	.....	
Do.....	Jan. 11-Apr. 20...	13	1	
Oran.....	Dec. 21-31.....	1	.....	
Do.....	Jan. 1-Apr. 20...	24	14	
Asia Minor:				
Brousa.....	Jan. 15-21.....	1	.....	
Austria:				
Vienna.....	Dec. 4-31.....	10	.....	
Do.....	Jan. 1-28.....	9	1	
Bolivia:				
La Paz.....	Aug. 1-Dec. 31...	121	98	
Do.....	Jan. 1-31.....	15	12	
Brazil:				
Sao Paulo.....	Feb. 6-12.....	12	2	
Bulgaria:				
Sofia.....	Dec. 18-24.....	1	.....	
Do.....	Feb. 12-Apr. 8...	3	.....	
Chile:				
Concepcion.....	Nov. 22-Dec. 26...	.....	3	
Do.....	Jan. 3-30.....	.....	3	
Talcahuano.....	Jan. 29-Feb. 18...	3	.....	
Valparaiso.....	Oct. 23-Nov. 26...	.....	6	
Do.....	Jan. 1-7.....	.....	1	
China:				
Antung.....	Dec. 26-Jan. 1.....	1	.....	
Do.....	Feb. 6-12.....	1	.....	
Harbin.....	Nov. 7-Dec. 25...	12	.....	
Do.....	Dec. 26-Mar. 19...	37	.....	Jan. 23, 1922: Reported extending from Soviet Russia along railway line to maritime provinces.
Czechoslovakia:				
Prague.....	Jan. 22-Feb. 18...	3	.....	
Danzig (free city).....	Feb. 23.....	1	.....	In district, at Zoppot. In merchant from Warsaw.
Egypt:				
Alexandria.....	Nov. 19-Dec. 31...	3	1	
Do.....	Jan. 15-Apr. 1.....	20	5	
Cairo.....	Oct. 1-Dec. 31...	16	14	Corrected report.
Do.....	Jan. 1-Feb. 18...	13	7	
Port Said.....	Jan. 22-Apr. 8.....	3	.....	
Finland:				
Helsingfors.....	Jan. 1-31.....	1	.....	In courier from Moscow.
Germany:				
Breslau.....	Dec. 25-31.....	2	1	
Do.....	Jan. 1-Feb. 5.....	55	8	Including district.
Frankfort-on-Oder.....	Feb. 16.....	26	.....	In persons returning from Russia
Hamburg.....	Dec. 11-17.....	4	.....	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 19, 1922—Continued.**

## **TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Great Britain:				
Birkenhead.....	Apr. 6.....	13	3	Vicinity of Liverpool.
Glasgow.....	Dec. 25-31.....	1		
London.....	Apr. 29.....	1		Stated to have probably been contracted in Warsaw.
Greece:				
Saloniki.....	Jan. 23-Mar. 19....	11		
Mesopotamia:				
Bagdad.....	Oct. 1-Dec. 31.....	3	9	
Do.....	Feb. 1-28.....	1		
Mexico:				
Mexico City.....	Nov. 20-Dec. 31....	242		Including municipalities in Federal District.
Do.....	Jan. 1-Mar. 23.....	275		Do.
San Luis Potosi.....	Dec. 18-24.....		1	Dec. 25-31, 1921: Present.
Do.....	Jan. 8-Feb. 23.....			Present. One death.
Palestine:				
Jerusalem.....	Dec. 27-Apr. 10....	13		
Poland.....				Aug. 14-Nov. 5, 1921: Cases, 2,399; deaths, 173. Nov. 6-Dec. 3, 1921: Cases, 1,512; deaths, 105. Nov. 20-Dec. 10, 1921: Cases, 1,162; deaths, 89. Dec. 4-31, 1921: Cases, 3,600; deaths, 313. Jan. 1-7, 1922: Cases, 1,322. All statistics are exclusive of Brest-Litovsk, Minsk, and Wilno districts.
District—				
Bialystok.....	Nov. 20-Dec. 10....	116	3	
Do.....	Jan. 1-7.....	253		
Gallcia—				
Lemberg.....	Jan. 3.....	229		Jan. 1-7, 1922: Cases, 61.
Kielce.....	Nov. 20-Dec. 10....	31	8	
Do.....	Jan. 1-7.....	28		
Krakow.....	Nov. 20-Dec. 10....	45	6	
Do.....	Jan. 1-7.....	53		
Lodz.....	Nov. 20-Dec. 10....	67		
Do.....	Jan. 1-7.....	41		
Lublin.....	Nov. 20-Dec. 10....	59		
Do.....	Jan. 1-7.....	147		
Lwow.....	Nov. 20-Dec. 10....	121		
Nowogrod.....	do.....	249	15	
Polesia.....	do.....	83	5	
Do.....	Jan. 1-7.....	450		
Pcsen.....	do.....	1		
Stanislavow.....	Nov. 20-Dec. 10....	88	8	
Do.....	Jan. 1-7.....	54		
Tarnopol.....	Nov. 20-Dec. 10....	86	17	
Do.....	Jan. 1-7.....	28		
Volhynia.....	Nov. 20-Dec. 10....	89	4	
Do.....	Jan. 1-7.....	107		
Warsaw.....	Nov. 20-Dec. 10....	81	2	
Do.....	Jan. 1-7.....	32		
Warsaw City.....	Nov. 20-Dec. 10....	47	5	
Do.....	Jan. 1-7.....	67		
Portugal:				
Oporto.....	Jan. 8-Apr. 15....	30	2	
Rumania:				
Bucharest.....	Nov. 1-30.....	3		
Cahul.....	Jan. 1-Feb. 28.....	7		District.
Chisinau.....	Nov. 1-Dec. 31....	28		District. Dec. 1-31, 1921: Recurrent typhus; cases, 19.
Do.....	Feb. 1-28.....	10		
Russia.....				Nov. 25-Dec. 10, 1921: in Soviet Russia, cases, 7,681.
Estonia.....	Oct. 1-Dec. 31.....	53		Recurrent typhus, 33 cases.
Do.....	Jan. 1-Feb. 24.....	48		Corrected report Oct. 1-Nov. 30, 1921: Cases, 127.
Lettonia.....	Oct. 1-Dec. 31.....	341		
Do.....	Jan. 1-Feb. 18.....	456		
Libau.....	Jan. 15-Feb. 1.....	4		
Lithuania.....	Jan. 1-31.....	814	73	Recurrent typhus: Cases, 357 deaths, 12. Typhus: Feb. 19, 1922, 400 cases, vicinity of Kovno, with mortality of 7 per cent.
Perm.....	Nov. 23-Dec. 10....	1,408		Oct. 1-31, 1921: Cases, 830, Nov. 1-31, 1921: Cases, 2,380.
Saratov District—				
Markstadt.....				Sept. 1-Dec. 31, 1921: Cases, 1,987; mortality, about 10 per cent; hospital cases.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 19, 1922—Continued.**

## **TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Serbia:				
Belgrade.....	Oct. 2-Nov. 26....	3	2	
Siberia.....				Jan. 23, 1922: Present in western districts. Epidemic.
Chita.....	Dec. 26.....			
Vladivostok.....	Dec. 25-31.....	5	1	
Spain:				
Madrid.....	Dec. 1-31.....		1	
Do.....	Jan. 1-Mar. 31....		13	Corrected report.
Syria:				
Aleppo.....	Mar. 10-23.....			Present.
Diarbekir.....	Mar. 5-Apr. 15....			Do.
Mardin.....	do.....			Do.
Tunis:				
Tunis.....	Feb. 5-Mar. 25....	4	3	
Turkey:				
Constantinople.....	Nov. 20-Dec. 31....	19		
Do.....	Jan. 1-Apr. 8.....	122	1	
Union of South Africa.....				Nov. 1-Dec. 31, 1921: Cases, 1,368; deaths, 205 (colored). White, 20 cases; deaths, 4. Jan. 1-30, 1922: Cases, 520; deaths, 84, occurring in native population; 12 cases with 2 deaths occurring in white population.
Cape Province.....				Oct. 21-Dec. 24, 1921: Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 1,053; deaths, 158 (colored). Among white population, 19 cases, 3 deaths.
Do.....				Jan. 1-Feb. 18, 1922: Outbreaks Jan. 1-30, 1922: Cases, 331; deaths, 40 (colored); cases, 4 deaths, 3 (among white population).
East London.....	Oct. 30-Dec. 24....	3		One death of European at Johannesburg, Dec. 6, 1921.
Do.....	Jan. 29-Feb. 11....	2		Natives.
Natal.....	Nov. 5-Dec. 17....			Outbreaks. Stated to be prevalent only in Newcastle district Nov. 1-Dec. 31, 1921: Cases, 135; deaths, 25 (colored). Jan. 1-30, 1922: Cases, 36; deaths, 1 (colored). Among white population, 3 cases.
Orange Free State.....	Nov. 13-Dec. 31....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 158; deaths, 21 (colored).
Do.....	Jan. 1-Mar. 11....			Outbreaks. Jan. 1-30, 1922: Cases, 133; deaths, 25.
Durban.....	Jan. 15-21.....	1		Imported.
Transvaal.....	Jan. 8-Feb. 11....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 35; deaths, 4 (colored). White, 1 case, 1 death. Jan. 1-30, 1922: Cases, 20 (colored).
Johannesburg District.....	Jan. 12-Feb. 28....	35	11	
Venezuela:				
Maracaibo.....	Dec. 20-25.....		1	
Yugoslavia:				
Bosnia Herzegovina.....	July 3-9.....	1		July 3-30, 1921: Cases, 13.
Croatia Slavonia—				
Zagreb.....	Jan. 1-Mar. 25....	4		
Montenegro.....	July 3-9.....	3		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to May 19, 1922—Continued.

## YELLOW FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Pernambuco.....	Feb. 19-Mar. 4....	2	1	
Mexico:				
Colima (State).....	Oct. 27.....	4	3	Year 1921: Cases, 115; deaths, 53.
Manzanillo.....	Aug. 21.....	3	1	Year 1921: Cases, 7; deaths, 4.
Jalisco (State).....	Nov. 1-30.....	1	1	Year 1921: Cases, 13; deaths, 7.
Guadalupe.....	Oct. 5-Dec. 17....	13	5	Imported.
Puerto Vallarta (Las Penas).....	Jan. 31.....		1	
Do.....	Aug. 31.....	1	1	
Quintana Roo (Territory)—				
Payo Obispo.....	Aug. 8.....	1	1	
Sinaloa (State).....	Sept. 17.....	4	1	Year 1921: Cases, 18; deaths, 9.
Cullacan.....	Oct. 10.....	1	1	
Guamuchil.....	Aug. 21.....	1	1	Imported.
Mazatlan.....	Sept. 30.....	12	7	
Palmar de los Leales.....				Year 1921: Cases, 1; deaths, 1.
Tamaulipas (State).....	Jan. 11.....	1	1	
Vera Cruz (State).....	June 21.....	4	1	Year 1921: Cases, 75; deaths, 31.
Alamo.....	July 3.....	1	1	Oil camp.
Alvarado.....	July 18.....	1	1	
Barra de Penn.....	Sept. 22.....	5	3	
Cordoba.....	July 18.....	14	6	
Cosamaloapam.....	Oct. 28.....	1	1	
Nogales.....	do.....	1	1	
Orizaba.....	Jan. 14.....	6	3	
Papantla.....	Oct. 28.....	3		
Providencia.....	Feb. 7.....	1	1	
Purga.....	Oct. 8.....	2	2	
Rancho de Santa Rosa.....	Sept. 14.....	1		
Rancho "El Jaguey".....	Sept. 12.....	2		
San Pablo (Papantla).....	Oct. 17.....	4	3	
San Ildefonso.....	Sept. 24-Nov. 12..	1	1	
Tierra Blanca.....	Jan. 3.....	8	2	
Tlacotalpan.....	Jan. 15.....	18	7	Two of these cases imported. Dec. 20-25, 1921: Cases, 1; deaths, 1.
Tuxpam.....				Imported. March, 1922: One case on plantation 105 miles from port of Vera Cruz.
Vera Cruz.....				

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